

SHARP 21E-FV3RU SERVICE MANUAL



Table of Contents

[Table of Contents](#)

[SPECIFICATIONS](#)

[IMPORTANT SERVICE NOTES](#)

[SERVICE OF HIGH VOLTAGE SYSTEM AND PIC- TURE TUBE](#)

[BEFORE RETURNING THE RECEIVER](#)

[ADJUSTMENT PRECAUTIONS](#)

[ADJUSTMENT ITEM](#)

[USER DATA IN SERVICE MODE](#)

[CONVERGENCE ADJUSTMENT](#)

[NTSC CHROMA ADJUSTMENT](#)

SECAM CHROMA ADJUSTMENT

PAL CHROMA ADJUSTMENT

FUNCTION OPERATION CHECKING (VIDEO AND AUDIO)

HEADPHONE JACK CHECKING

SHOCK TEST CHECKING

ROM-CORRECTION CHECKING

MEMORY MAP

NO PICTURE, NO SOUND

TROUBLE SHOOTING TABLE

TROUBLESHOOTING FLOWCHART

SOLID STATE DEVICE BASE DIAGRAM

TOP VIEW

SIDE VIEW

WAVEFORMS

CHASSIS LAYOUT

BLOCK DIAGRAM

PWB-A MAIN UNIT

PWB-B CRT UNIT

PWB-C HEADPHONE UNIT

DESCRIPTION OF SCHEMATIC DIAGRAM

SCHEMATIC DIAGRAM

• MAIN UNIT

• CRT UNIT

• HEADPHONE UNIT

• S-CONTROL UNIT

• TELETEXT UNIT

PRINTED WIRING BOARD ASSEMBLIES

REPLACEMENT PARTS LIST

• ELECTRICAL PARTS

PICTURE TUBE

MISCELLANEOUS PARTS

SUPPLIED ACCESSORIES

PACKING PARTS

CABINET PARTS LOCATION

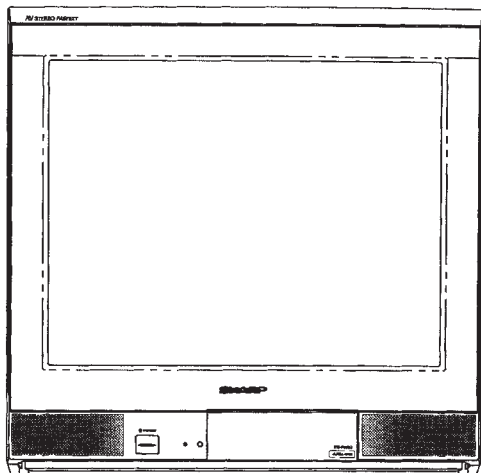
PACKING OF THE SET

ALL RIGHTS RESERVED

Other ManualsLib Projects

SHARP**SERVICE MANUAL**

S93J121E-FV3R

**COLOUR TELEVISION****Chassis No. GA-2****MODEL 21E-FV3RU**

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

FEATURES

- Multi 21 Systems
- Full Auto Channel Preset and Auto Channel Skip
- 100-CH Program Memory
- CATV(Hyper Band) Ready <Used Frequency Synthesizer Tuner>
- Black Stretch Circuit
- On Timer/Sleep Timer/Reminder Timer
- Blue Back Noise Mute
- Front AV IN & Rear AV IN/OUT Terminals
- Front Headphone Jack
- Colour Comb Filter (NTSC Only)
- High Contrast Picture
- Hotel Mode
- Two Languages OSD(Eng/Russian)
- TELETEXT
- White Temperature Adjustment
- Component In
- Surround Sound Effect(With Bass/Treble/Balance)

CONTENTS

	Page		Page
● SPECIFICATIONS	2	■ CRT UNIT	44
● IMPORTANT SERVICE NOTES	2	■ HEADPHONE UNIT	44
● ADJUSTMENT PRECAUTIONS	3	■ S-CONTROL UNIT	45
● MEMORY MAP	15	■ TELETEXT UNIT	46
● TROUBLE SHOOTING TABLE	31	● PRINTED WIRING BOARD ASSEMBLIES	48
● SOLID STATE DEVICE BASE DIAGRAM	33	● REPLACEMENT PARTS LIST	
● WAVEFORMS	34	■ ELECTRICAL PARTS	54
● CHASSIS LAYOUT	35	■ MISCELLANEOUS PARTS	60
● BLOCK DIAGRAM	36	■ SUPPLIED ACCESSORIES	60
● DESCRIPTION OF SCHEMATIC DIAGRAM ..	41	■ PACKING PARTS	60
● SCHEMATIC DIAGRAM		■ CABINET PARTS	61
■ MAIN UNIT	42	● PACKING OF THE SET	62

WARNING

The chassis in this receiver is partially hot. Use an isolation transformer between the line cord plug and power receptacle, when servicing this chassis. To prevent electric shock, do not remove cover. No user – serviceable parts inside. Refer servicing to qualified service personnel.

SHARP CORPORATION

SPECIFICATIONS

Convergence Self Convergence System
Focus UNI-BI Focusing
Sweep Deflection Magnetic

Intermediate Frequencies

Picture IF Carrier 38.9MHz
Sound IF Carrier Frequency
6.5MHz 32.4MHz
6.0MHz 32.9MHz
5.5MHz 33.4MHz
4.5MHz 34.4MHz
Colour Sub-Carrier Frequency 34.47MHz

Power Input 220 ~ 240V AC 50/60 Hz
Power Consumption 97W
Audio Power Output Rating 2.5W(rms)X2

Speaker

Size 9 x 5 cm (2pcs)
Voice Coil Impedance 16 ohms at 400 Hz

Aerial Input Impedance

VHF/UHF 75 ohms Unbalanced
Receiving System

PAL I, B/G, D/K & SECAM B/G, D/K, -K1 & NTSC M

Receiving Channel

VHF-Channels E2(48.25MHz) thru E12(224.25MHz)
C1 (49.75 MHz) thru C12 (216.25 MHz)
S1 (105.25 MHz) thru S41 (463.25 MHz)
UHF-Channels E21(471.25MHz) thru E69(855.25MHz)
C13 (471.25 MHz) thru C57 (863.25 MHz)

Dimensions Width: 502.0 mm
Height: 487.0 mm
Depth: 481.5 mm
Weight(approx): 21.9 kg

Cabinet material All Plastics

Specifications are subject to change without priand notice.

IMPANDTANT SERVICE NOTES

Maintenance and repair of this receiver should be done by qualified service personnel only.

SERVICE OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove static charge from it by Connecting a 10K ohm Resistand in series with an insulated wire(such as a test probe) between picture tube dag and 2nd anode lead. (AC line candd should be disconnected from AC outlet.)

1. Picture tube in this receiver employs integral implosion protection.
2. Replace with tube of the same type number for continued safety.
3. Do not lift picture tube by the neck.
4. Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely.

X-RAY

This receiver is designed so that any X-Ray radiation is kept to an absolute Minimum. Since certain malfunctions and servicing may produce potentially hazardous radiation with prolonged exposure at close range, the following precautions should be observed:

1. When repairing the circuit, be sure not to increase the high voltage to mande than 30.0kV (at beam 0 μ A) fo the set.
2. To keep the set in a normal operation , be sure to make it function on 27.0kV $\pm$ 1.0kV (at beam 1,150 μ A) in the case of the set. The set has been factandy - Adjusted to the above-mentioned high voltage.
∴ If there is a possibility that the high voltage fluctuates as a result of the repairs, never forget to check for such high voltage after the wandk.
3. Do not substitute a picture tube with unauthandizerd types and/and brands which may cause excess X-ray radiation.

BEFORE RETURNING THE RECEIVER

Before returning the receiver to the user, perform the following safety Checks.

1. Inspect all lead dress to make certain that leads are not pinched and that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers and shields, isolation resistand-capacity netwandks, mechanical insulatands etc.

ADJUSTMENT PRECAUTIONS

This model's setting are adjusted in two different ways: through the I²C bus control and in the conventional analog manner. The adjustments via the I²C bus control include preset-only items and variable data.

CAUTION : MAKE SURE TV SET IN "NORMAL CONDITION" BEFORE SWITCH TO SERVICE MODE FOR ADJUSTMENT.

1. Setting the service mode by the microprocessand.

- ①. Short JA 304 & JA 307 , then tv set will switch to the service mode position, and the microprocessand is in input mode. (Adjustment through the I²C bus control). (Use JWS Key to set as well).
- ②. Press the CH DOWN / UP key on the remote controller to get ready to select the mode one by one.
- ③. Press the CH DOWN / UP key on the remote controller to select the modes reversibly one by one.
- ④. Using the VOLUME UP/ DOWN key on the remote controller, the data can be modified.
- ⑤. Disable the short of JA 304 & JA 307, it will switch to the normal mode (OFF) position, and the microprocessand is out of the service mode.

2. Factandy Presetting.

- ①. Shandt JA 304 & JA 307, then turn ON the main power and release to switch to the service mode position. Initial values are automatically preset, only when a new EEPROM is used (Judge with the first 4 bytes).
- ②. The initial data are preset as listed in page 4-2 to 6-1.
- ③. Make sure the data need modify or not (Initial data).

Note: Once the chassis has been assembly together and ready to be POWER ON for the FIRST TIME, make sure to short JA304 & JA307 to switch to the service mode position first and then turn on the main power switch (See 2-(1) above).

Precaution: If haven't done this initiation, it may possibly generate excessive Beam current.

3. FOR reference please check with memory map.

ADJUSTMENT ITEM

*****Below is the adjustment items that we should done, PLS FOLLOW THE PROCEDURE. Otherwise some adjustment item will be no accurate.**

NO ***	ADJUSTMENT ITEM	EFFECTIVE MODEL	REVISION
1	BUS SET UP	ALL	
2	OPTION SET UP	ALL	
3	V-SIZE (50 Hz)	ALL	
4	V-SHIFT (50 Hz)	ALL	
5	H-SHIFT (50 Hz)	ALL	
6	H-VCO	ALL	
7	VIF-VCO	ALL	
8	S-TRAP fo	ALL	
9	RF-AGC	ALL	
10	PURITY ADJ	ALL	
11	CONVERGENCE ADJ	ALL	
12	FOCUS ADJ	ALL	
13	SCREEN	ALL	
14	WHITE BALANCE	ALL	
15	SUB-BRIGHTNESS	ALL	
16	SUB-CONTRAST	ALL	
17	SUB-TINT	WITH NTSC MODEL	
18	SUB-COLOR	ALL	
19	SECAM-OFFSET	WITH SECAM MODEL	
20	SIF VCO ADJ	WITH STEREO MODEL	
21	MAX BEAM CHECK	ALL	
22	BEAM PROTECTAND CHECK	ALL	
23	HV PROTECTOR CHECK	ALL	
24	OTHER PROTECTAND CHECK	ALL	
25	AV OUT CHECK	ALL	
26	AV IN CHECK	ALL	
27	CONTRAST CONTROL CHECK	ALL	
28	COLOR CONTROL CHECK	ALL	
29	BRIGHTNESS CONTROL CHECK	ALL	
30	TINT CONTROL CHECK	WITH NTSC MODEL	
31	SHARPNESS CONTROL CHECK	ALL	
32	CH DISPLAY COLOR CHECK	ALL	
33	NORMDISPLAY CHECK	ALL	
34	WHITE TEMP CONTROL CHECK	ALL	
35	COLOR SYSTEM CHECK	ALL	
36	SOUND SYSTEM CHECK	ALL	
37	NOISE MUTE CHECK	ALL	
38	HEAD PHONE CHECK	WITH H/PHONE MODEL	

USER DATA IN SERVICE MODE

* While SERVICE mode ON, EEPROM DATA will switch to the service data.

Also, once SERVICE mode OFF, EEPROM will switch back to previous USER DATA.

* In the service mode, the user data establish as below.

	USER DATA
CONTRAST	MAX (60)
COLOUR	CENT (0)
BRIGHTNESS	CENT (0)
TINT	CENT (0)
SHARPNESS	CENT (0)
WHITE TEMP	STANDARD
S-VOLUME	MIN
SURROUND	OFF
TREBLE	CENT (0)
BASS	CENT (0)
BLUE BACK	OFF
C SYSTEM	AUTO
S SYSTEM	*1

*1: For each CH, data is same as before switch to Service Mode.

The flow of Mode lists as following.

* Direct Key-in Mode for Service Items in Service Mode

RC (HEX)	SERVICE-ITEM
80	R-CUTOFF UP (IN SERVICE MODE V00)
40	G-CUTOFF UP (IN SERVICE MODE V00)
C0	B-CUTOFF UP (IN SERVICE MODE V00)
20	R-CUTOFF DOWN (IN SERVICE MODE V00)
A0	G-CUTOFF DOWN (IN SERVICE MODE V00)
60	B-CUTOFF DOWN (IN SERVICE MODE V00)
E0	R-DRIVE UP (IN SERVICE MODE V00)
10	B-DRIVE UP (IN SERVICE MODE V00)
50	B-DRIVE DOWN (IN SERVICE MODE V00)
E4	R-DRIVE DOWN (IN SERVICE MODE V00)
E4	Y-MUTE (BESIDES OF SERVICE MODE V00)
75	RF-AGC (V01)
F5	VIF-VCO (V02)
C2	H-VCO (V03)
8D	SUB-CONTRAST (V04)
D6	SUB-COLOR (V05)
0D	SUB-BRIGHTNESS (V06)
36	SUB-TINT(V07)
46	SUB-SHARPNESS (V08)
C6	SUB COLOR YUV (V09)
26	SUB TINT YUV (V10)
24	V-SIZE (V11), V-SIZE60 (V17)
54	V-SHIFT (V12), V-SHIFT60 (V18)
74	H-SHIFT (V13), H-SHIFT60 (V19)
66	SCM-BR (V14)
E6	SCM-BB (V15)
C4	SUB VOL (V16)
4C	S-TRAP BG (V20)
CC	S-TRAP I (V21)
2C	S-TRAP D/K (V22)
AC	S-TRAP M (V23)
EC	S-TRAP 574 (V24)
C1	AUTO ADJ FOR V01, V02, V03, V20, V21, V22, V23,V24
CA	T-SET
81	SERVICE MODE

** After short JA304 & JA307, and turn on the MAIN POWER switch, read data from EEPROM address 00H ~ 03H, and compare to the list below, if different, initialize the EEPROM.

Address	:	Data	Address	:	Data
00H	:	7AH	02H	:	71H
01H	:	73H	03H	:	79H

** There is four stage of service mode data.

First stage data from V00~V24.

To go into second stage of service mode data, press **MENU** key.

Second stage data from F01~F131 (**BUS SET UP**).

To go into third stage of service mode data, press **MENU** key.

Third stage data from 001~023 (**OPTIONS SET UP**).

To go into fourth stage of service mode data, press **MENU** key.

Fourth stage is check mode.

FIRST STAGE					
EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ/AUTO	REMARK
R-DRIVE	V00	0~127	63	ADJ	PLS REFER TO ADJ ITEM FOR SCREEN AND WHITE BALANCE
B-DRIVE	V00	0~127	63	ADJ	
R-CUT	V00	0~255	127	ADJ	
G-CUT	V00	0~255	127	ADJ	
B-CUT	V00	0~255	127	ADJ	
RF-AGC	V01	0~127	50	AUTO	
VIF-VCO	V02	0~63	31	AUTO	
H-VCO	V03	0~7	3	AUTO	
SUB-CONTRAST	V04	0~127	100	ADJ	
SUB-COLOR	V05	0~127	63	ADJ	
SUB-BRIGHT	V06	0~255	127	ADJ	
SUB-TINT	V07	0~127	63	ADJ	
SUB-SHARPNESS	V08	0~63	43	FIX	
SUB-COLOR -YUV	V09	0~127	90	*FIX	BUS SET UP
SUB-TINT-YUV	V10	0~127	63	FIX	
V-SIZE 50 Hz	V11	0~63	38	ADJ	
V-SHIFT 50 Hz	V12	0~7	3	ADJ	
H-SHIFT 50 Hz	V13	0~31	9	ADJ	
SECAM-BR	V14	0~63	37	ADJ	
SECAM-BB	V15	0~63	22	ADJ	
SUB-VOL	V16	0~60	60	FIX	
V-SIZE 60 Hz	V17	-31~0~+31	0	FIX	IF NECESSARY, ADJ
V-SHIFT 60 Hz	V18	-7~0~+7	-1	FIX	IF NECESSARY, ADJ
H-SHIFT 60 Hz	V19	-15~0~+15	+2	FIX	IF NECESSARY, ADJ
S-TRAP (BG)	V20	0~15	7	AUTO	
S-TRAP (I)	V21	0~15	7	AUTO	
S-TRAP (DK)	V22	0~15	7	AUTO	
S-TRAP (M)	V23	0~15	7	AUTO	
S-TRAP (5.74)	V24	0~15	7	AUTO	

SECOND STAGE (BUS SET UP)					
EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ/AUTO	REMARK
STRAPQ-BG	F01	0/1	0	FIX	
STRAPQ-I	F02	0/1	0	FIX	
STRAPQ-DK	F03	0/1	0	FIX	
STRAPQ-M	F04	0/1	0	FIX	
STRAPQ-574	F05	0/1	0	FIX	
C.CLIP-LVL	F06	0/1	0	FIX	
RGB-CLIP	F07	0/1	0	FIX	
BS	F08	0/1	0	FIX	
ABCL	F09	0/1	0	FIX	
ABCL-GAIN	F10	0/1	0	FIX	
S-OUT-LVL	F11	0~127	95	FIX	
VIF-G	F12	0~7	4	FIX	
SHPG	F13	0/1	0	FIX	
SHPG-P	F14	0/1	0	FIX	
SHPG-S	F15	0/1	0	FIX	
SHPG-N4	F16	0/1	0	FIX	
SHPG-N3	F17	0/1	1	FIX	
YDL	F18	0~7	5	FIX	
YDL-P	F19	0~7	5	FIX	
YDL-S	F20	0~7	7	FIX	
YDL-N4	F21	0~7	5	FIX	
YDL-N3	F22	0~7	5	FIX	
YDL-AV	F23	0~7	6	FIX	
YDL-AV-P	F24	0~7	6	FIX	
YDL-AV-S	F25	0~7	7	FIX	
YDL-AV-N4	F26	0~7	6	FIX	
YDL-AV-N3	F27	0~7	6	FIX	
YDL-YUV	F28	0~7	6	FIX	
COL-AV (OFFSET)	F29	-31~0~+31	+10	*FIX	BUS SET UP
COL-P (OFFSET)	F30	-30~0~+31	0	FIX	
COL-S (OFFSET)	F31	-31~0~+31	+9	FIX	
COL-N4 (OFFSET)	F32	-31~0~+31	-8	FIX	
COL-N3 (OFFSET)	F33	-31~0~+31	-7	FIX	
COL-ADJ (OFFSET)	F34	-31~0~+31	0	*FIX	BUS SET UP
SHP-AV (OFFSET)	F35	-31~0~+31	+5	FIX	
SHP-YUV (OFFSET)	F36	-31~0~+31	0	FIX	
SHP-P (OFFSET)	F37	-31~0~+31	0	FIX	
SHP-S (OFFSET)	F38	-31~0~+31	-5	FIX	
SHP-N4 (OFFSET)	F39	-31~0~+31	0	FIX	
SHP-N3 (OFFSET)	F40	-31~0~+31	0	FIX	
TINT-AV (OFFSET)	F41	-63~0~+63	0	*FIX	BUS SET UP
TINT-ADJ (OFFSET)	F42	-63~0~+63	0	*FIX	BUS SET UP
TINT-YUV-ADJ (OFFSET)	F43	-63~0~+63	0	FIX	
R-R (OFFSET)	F44	-63~0~+63	+8	*FIX	BUS SET UP
B-R (OFFSET)	F45	-63~0~+63	-10	*FIX	BUS SET UP
R-B (OFFSET)	F46	-63~0~+63	-3	*FIX	BUS SET UP
B-B (OFFSET)	F47	-63~0~+63	+16	*FIX	BUS SET UP
DT	F48	0/1	0	FIX	
DT-P	F49	0/1	0	FIX	
DT-S	F50	0/1	1	FIX	
DT-N4	F51	0/1	0	FIX	
DT-N3	F52	0/1	0	FIX	
TRAP	F53	0~3	2	FIX	
TRAP-P	F54	0~3	2	FIX	
TRAP-S	F55	0~3	2	FIX	
TRAP-N4	F56	0~3	2	FIX	
TRAP-N3	F57	0~3	2	FIX	

SECOND STAGE (BUS SET UP)					
EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ/AUTO	REMARK
1W-TV	F58	0/1	0	FIX	
1W-AV	F59	0/1	1	FIX	
V-FREE (NO SYNC)	F60	0/1	0	FIX	
AFC2 (NO SYNC)	F61	0/1	0	FIX	
GAMMA	F62	0~3	0	FIX	
BS-D/C	F63	0~15	10	FIX	
BS-GAIN	F64	0/1	0	FIX	
OM-DET	F65	0/1	0	FIX	
SL-TV	F66	0~7	2	FIX	
SL-AV	F67	0~7	4	FIX	
SL-YUV	F68	0~7	4	FIX	
VD2/VD1/AS/FBP-TV	F69	0~15	6	FIX	
VD2/VD1/AS/FBP-AV	F70	0~15	14	FIX	
VD2/VD1/AS/FBP-YUV	F71	0~15	14	FIX	
VDL	F72	0~3	0	FIX	
UDL	F73	0~3	0	FIX	
AUTO-SCM-KIL-TV	F74	0~3	1	FIX	
SCM-YDL	F75	0/1	0	FIX	
SECAM-BGP	F76	0~3	0	FIX	
N45	F77	0/1	0	FIX	
DL-REV	F78	0/1	0	FIX	
DL-OUT	F79	0/1	0	FIX	
TXT-POS-H (TELETEXT)	F80	0~63	30	*FIX	BUS SET UP
TXT-POS-V (TELETEXT)	F81	0~63	34	FIX	
OSD-POS	F82	0~127	9	FIX	
CP	F83	0/1	1	FIX	
SMALL-SURR (S-CTRL)	F84	0/1	0	FIX	
SUB-BASS (S-CTRL)	F85	0~7	6	FIX	
SUB-TREB (S-CTRL)	F86	0~7	0	FIX	
AGC-ADJ (S-CTRL)	F87	0~4	0	FIX	
AGC-SW-OFF (NICAM)	F88	0(fix)/1(auto)	1	FIX	
AGC-GAIN-ADJ (NICAM)	F89	0~31	16	FIX	
FM-LEVEL-ADJ (NICAM)	F90	-15~0~+15	0	FIX	
IGR-LEVEL-ADJ (NICAM)	F91	-15~0~+15	+1	FIX	
NICAM-BG-LVL-ADJ (NICAM)	F92	-15~0~+15	-2	FIX	
NICAM-I-LVL-ADJ (NICAM)	F93	-15~0~+15	+3	FIX	
NICAM-DK-LVL-ADJ (NICAM)	F94	-15~0~+15	-1	FIX	
NICAM-LOW-ERR-LIM (NICAM)	F95	0~255	35	FIX	
NICAM-UPP-ERR-LIM (NICAM)	F96	0~255	*70	*FIX	BUS SET UP
IGR-GAIN-ADJ (IGR)	F97	-6~0~+7	0	FIX	
FM-ID-SPEED (NICAM)	F98	0~3	1	FIX	
NICAM-AUTO-MUTE	F99	0/1	0	FIX	
ANA-OSD	F100	0(Dig)/1(Ana)	0	*FIX	BUS SET UP
AUTO-SCM-KIL-AV-YUV	F101	0~3	1	FIX	
AFC1-GAIN-TV	F102	0~3	0	FIX	
AFC1-GAIN-AV	F103	0~3	3	FIX	
AFC1-GAIN-YUV	F104	0~3	3	FIX	
CON-REDUCE	F105	0(0%)~1(25%)~2(50%)	0	FIX	
TAKE-OFF-TV	F106	0/1	1	FIX	
TAKE-OFF-AV	F107	0/1	0	FIX	
TAKE-OFF-YUV	F108	0/1	0	FIX	
C-ANGLE (103 DEG/ 95 DEG)	F109	0 (103deg) / 1 (95deg)	1	FIX	
STD-BY-WO-BRIGHT	F110	0~255	*255	*FIX	BUS SET UP
AC-FAIL-WO-BRIGHT	F111	0~255	*255	*FIX	BUS SET UP
FORCED-SCM-KIL-TV	F112	0~3	2	FIX	
FORCED-SCM-KIL-AV-YUV	F113	0~3	2	FIX	

SECOND STAGE (BUS SET UP)					
EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ/AUTO	REMARK
R-Y Adj	F114	0(dis)/1(ena)	0	*FIX	BUS SET UP
V-Demute-Delay	F115	0~255	0	FIX	
S-Demute-Delay	F116	0~255	0	FIX	
MER (DAC)	F117	0~255	70	FIX	
MEL1 (DAC)	F118	0~255	150	FIX	
MEL2 (DAC)	F119	0~255	156	FIX	
MEL3 (DAC)	F120	0~255	163	FIX	
MEL4 (DAC)	F121	0~255	165	FIX	
MEL5 (DAC)	F122	0~255	170	FIX	
MEL6 (DAC)	F123	0~255	180	FIX	
S-St-Point	F124	0~60	21	FIX	
S-Sp-Point	F125	0~60	60	FIX	
S-Step	F126	0~60	7	FIX	
Pow-Storage	F127	0(dis)/1(ena)	0	*FIX	BUS SET UP
S-B-BASS	F128	-30~0~+30	+15	FIX	
S-B-TREB	F129	-30~0~+30	+15	FIX	
S-BASS	F130	-30~0~+30	+30	FIX	
S-TREB	F131	-30~0~+30	+30	FIX	

ADJ ITEM: BUS SET UP (2ND STAGE SERVICE DATA)				
SERVICE ITEMS		21E-FV3RU		
F100	0 (DIGITAL) / 1 (ANALOG) OSD	1		
F44	R-R (OFFSET)	+8		
F45	B-R (OFFSET)	-10		
F46	R-B (OFFSET)	-3		
F47	B-B (OFFSET)	+16		
V09	SUB-COLAND-YUV	90		
F29	COL-AV (OFFSET)	+10		
F34	COL-ADJ (OFFSET)	0		
F41	TINT-AV (OFFSET)	0		
F42	TINT-ADJ (OFFSET)	0		
F110	STD-BY-WO-BRIGHT	255		
F111	STD-BY-WO BRIGHT	100		
F80	TXT-POS-H (TELETEXT)	38		
F114	R-Y Adj	1		
F96	NICAM-UPP-ERR-LIM (NICAM)	70		
F127	POW-STORAGE	1		

THIRD STAGE (OPTION SET UP)				
EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	REMARK
***HOTEL MODE	001	0 (OFF) / 1 (ON)	0	OPTION SET UP
***HTL-POS	002	0~99,—	—	OPTION SET UP
***HTL-VOL	003	0~60,—	—	OPTION SET UP
VIF	004	0 (38.0) / 1 (38.9)	1	OPTION SET UP
SECAM	005	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
N443(RF)	006	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
N358(RF)	007	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
FORCE-COL	008	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
S-SYS	009	1(BG ONLY)~15(ALL)	15	OPTION SET UP
AV	010	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
AV2	011	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
YUV	012	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
S-CTRL	013	0 (DISABLE) / 1 (ENABLE)	1	OPTION SET UP
NICAM	014	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
A2	015	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
TELETEXT	016	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
BILINGUAL	017	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
LANGUAGE	018	1~255	63	OPTION SET UP
SEARCH-SPEED	019	1(350)~2(450)~3(550)~4(650)~5(750)	3	OPTION SET UP
R/C-MENU	020	0 (ENABLE) / 1 (DISABLE)	0	OPTION SET UP
LED-CONT	021	0 (ONE LED) / 1 (TWO LED)	0	OPTION SET UP
S-BOOSTER	022	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP
SHARP-LOGO	023	0 (DISABLE) / 1 (ENABLE)	0	OPTION SET UP

ADJ ITEM: OPTION SET UP (3RD STAGE SERVICE DATA)				
SERVICE ITEMS		21E-FV3RU		
001	HTL MODE 0 (OFF) / 1 (ON)	0		
002	HTL-POS 0~99,—	—		
003	HTL-VOL 0~60,—	—		
004	VIF 0 (38.0) / 1 (38.9)	1		
005	SECAM 0 (DISABLE) / 1 (ENABLE)	1		
006	N443(RF) 0 (DISABLE) / 1 (ENABLE)	1		
007	N358(RF) 0 (DISABLE) / 1 (ENABLE)	1		
008	FORCE-COL 0 (DISABLE) / 1 (ENABLE)	0		
009	S-SYS 1 (BG ONLY) ~ 15 (ALL)	15		
010	AV 0 (DISABLE) / 1 (ENABLE)	1		
011	AV2 0 (DISABLE) / 1 (ENABLE)	1		
012	YUV 0 (DISABLE) / 1 (ENABLE)	1		
013	S-CTRL 0 (DISABLE) / 1 (ENABLE)	1		
014	NICAM 0 (DISABLE) / 1 (ENABLE)	0		
015	A2 0 (DISABLE) / 1 (ENABLE)	0		
016	TEXT 0 (DISABLE) / 1 (ENABLE)	1		
017	BIL 0 (DISABLE) / 1 (ENABLE)	0		
018	LANG 1~255	09		
019	SERCH-SP 1(350)~2(450)~3(550)~4(650)~5(750)	3		
020	R/C MENU 0 (ENABLE) / 1 (DISABLE)	0		
021	LED-CONT 0 (ONE LED) / 1 (TWO LED)	0		
022	S-BOOSTER 0 (DISABLE) / 1 (ENABLE)	0		
023	SHARP-LOGO 0 (DISABLE) / 1 (ENABLE)	0		

*** HOTEL MODE
OPERATION OF HOTEL MODE:
WHEN CHANGE SERVICE DATA 001 TO 1, HOTEL MODE IS ON
WHEN HOTEL MODE IS ON,
1. Max volume data is determined by option setting HTL-VOL (003)
2. Channel position after POWER ON is determined by option setting HOTEL-POS (002) (if option setting HOTEL-POS is not set, processing is according to last position data).
3. User data updates of EEPROM regarding the video and audio control is not allowed.
4. Preset mode is disable.
5. CH SETTING menu is not available.

1.) Please set the MCL according to the specific models.

MCL1:

MCL2:

MCL3: 21E-FV3RU

MCL4:

2.) After set the MCL , please set the **INITIAL SETTING** for each models.

INITIAL1: For China (All Channel Sound System are set to D/K)

INITIAL2: For Hong Kong (All Channel Sound System are set to I)

INITIAL3: For Singapande, Africa and Australia (All Channel Sound System are set to B/G)

INITIAL4: For Middle-East (All Channel Sound System are set to B/G)

INITIAL5: For Russia (All Channel Sound System are set to D/K)

MCL1 (HEX AE)			MCL2 (HEX 95)			MCL3 (HEX 55)			MCL4 (HEX D5)		
CH-NO	Fv (MHz)	SOUND SYS	CH-NO	Fv (MHz)	SOUND SYS	CH-NO	Fv (MHz)	SOUND SYS	CH-NO	Fv (MHz)	SOUND SYS
0			0	590.25	B/G	0			0		
1	48.25	B/G	1	46.25	B/G	1	48.25	B/G	1	55.25	B/G
2	62.25	B/G	2	64.25	B/G	2	59.25	D/K	2	175.25	B/G
3	77.25	D/K	3	86.25	B/G	3	65.75	D/K	3	189.25	B/G
4	175.25	B/G	4	95.25	B/G	4	77.25	D/K	4	203.25	B/G
5	182.25	B/G	5	138.25	B/G	5	85.25	D/K	5	217.25	B/G
6	183.25	D/K	6	175.25	B/G	6	93.25	D/K	6	535.25	B/G
7	191.25	D/K	7	182.25	B/G	7	175.25	B/G	7		
8	196.25	B/G	8	189.25	B/G	8	184.25	D/K	8		
9	199.25	M	9	196.25	B/G	9	199.25	D/K	9		
10	210.25	B/G	10	209.25	B/G	10	210.25	B/G	10		
11	224.25	B/G	11	216.25	B/G	11	224.25	B/G	11	48.25	B/G
12	471.25	B/G	12			12	487.25	I	12	62.25	B/G
13	487.25	I	13			13	503.25	I	13	196.25	B/G
14	503.25	B/G	14			14	575.25	B/G	14	210.25	B/G
15	575.25	B/G	15			15	639.25	D/K	15	224.25	B/G
16	583.25	B/G	16			16	767.25	D/K	16	471.25	B/G
17	599.25	B/G	17			17	831.25	D/K	17	855.25	B/G
18	621.25	M	18			18	855.25	I	18		
19	639.25	D/K	19			19	97.25	M	19		
20	703.25	B/G	20			20	183.25	M	20		
21	735.25	I	21			21	193.25	M	21	223.95	B/G
22	767.25	B/G	22			22	211.25	M	22	224.55	B/G
23	815.25	B/G	23			23	217.25	M	23	223.85	B/G
24	855.25	I	24			24	477.25	M	24	224.65	B/G
25	855.25	B/G	25			25	693.25	M	25	223.75	B/G
26	55.25	M	26			26	62.25	B/G	26	224.75	B/G
27	83.25	M	27			27	503.25	B/G	27		
28	183.25	M	28	527.25	B/G	28	527.25	B/G	28		
29	193.25	M	29			29	599.25	B/G	29		
30	217.25	M	30			30	621.25	M	30		
31	471.25	M	31			31	815.25	B/G	31	91.25	M
32	477.25	M	32			32	112.25	B/G	32	103.25	M
33	693.25	M	33			33	168.25	B/G	33	171.25	M
34	885.25	M	34			34	91.25	M	34	183.25	M
35	112.25	B/G	35			35	294.25	B/G	35	193.25	M
36	168.25	B/G	36			36	463.25	B/G	36	205.25	M
37			37	590.25	B/G	37	174.95	B/G	37	217.25	M
38	294.25	B/G	38			38	174.55	B/G	38	621.25	M
39	463.25	B/G	39			39			39		
40			40			40			40		
41	647.25	B/G	41	48.25	B/G	41			41		
42	663.25	B/G	42	62.25	B/G	42			42		
43	679.25	B/G	43	77.25	D/K	43			43		
44	174.95	B/G	44	175.25	B/G	44			44		
45	175.55	B/G	45	183.25	D/K	45			45		
46			46	191.25	D/K	46			46		
47			47	210.25	B/G	47			47		
48			48	224.25	B/G	48			48		
49			49	487.25	I	49			49		
50			50	503.25	B/G	50			50		
51			51	575.25	B/G	51			51		
52			52	599.25	B/G	52			52		
53			53	621.25	M	53			53		
54			54	639.25	D/K	54			54		
55			55	735.25	I	55			55		
56			56	767.25	B/G	56			56		
57			57	815.25	B/G	57			57		
58			58	855.25	I	58			58		
59			59	91.25	M	59			59		
60			60	183.25	M	60			60		
61			61	193.25	M	61			61		
62			62	217.25	M	62			62		
63			63	471.25	M	63			63		
64			64	693.25	M	64			64		
65			65	112.25	B/G	65			65		
66			66	168.25	B/G	66			66		
67			67	294.25	B/G	67			67		
68			68	463.25	B/G	68			68		
69			69	174.25	B/G	69			69		
70			70	175.25	B/G	70			70		

*NOTE: PLL DATA OF ABOVE FREQ SHOULD TAKE THE ACCOUNT OF PIF SETTING IN SERVICE OPTION 004 (VIF) BEFORE STANDING INTO EEPROM.

SHIPPING SETTING & CHECKING

(1)The following default data has been factandy-set for the E2PROM follow by INITIAL DATA selected.

ITEMS	DATA SETTING
LAST POWER	ON
LAST TV/AV MODE	TV MODE
LAST POSITION	CH 1
FLASHBACK CHANNEL	CH 1
FAVOURITE CH A	CH 10
FAVOURITE CH B	CH 20
FAVOURITE CH C	CH 30
FAVOURITE CH D	CH 40
1/2 DIGIT ENTRY	2 DIGIT ENTRY
VOLUME	0 (Min)
BALANCE	0 (CENTER)
BLUE BACK	OFF
*TEXT	1
OFF TIMER	—:—
ON TIMER	—:—
ON TIMER POSITION	—
ON TIMER VOLUME	—
REMINDER	—:—
AFT	ALL CH ON
COL SYSTEM	ALL CH AUTO
SKIP	ALL CH OFF
NICAM ON/OFF	ALL CH ON
NICAM STEREO MODE	ALL CH STEREO
NICAM BILINGUAL MODE	ALL CH M1
NICAM MONO MODE	ALL CH MONO
IGR ON/OFF	ALL CH ON
IGR STEREO MODE	ALL CH STEREO
IGR BIL MODE	ALL CH MAIN
CONTRAST	60
COLAND	0
BRIGHTNESS	0
TINT	0
SHARPNESS	0
WHITE TEMP	0
SURROUND	OFF
TREBLE	0
BASS	0

*For model's include teletext function only.

INITIAL	LANGUAGE	SOUND SYSTEM
1 (HEX 14)	CHINESE	D/K
2 (HEX 15)	CHINESE	I
3 (HEX 17)	ENGLISH	B/G
4 (HEX 97)	ARABIC	B/G
5 (HEX 57)	RUSSIAN	D/K
6 (HEX D7)	MALAY	B/G
7 (HEX 37)	FRENCH	D/K

FACTORY SETTING BY MODEL (Reference: Geomagnetism Adjustment)

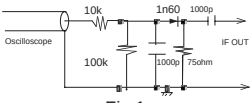
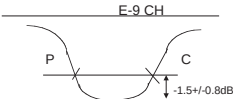
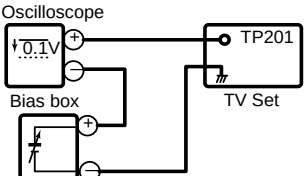
MODEL	MAGNEIC FIELD(V, H) nT		BACKGROUND	LANG.	S-SYS	LANG QTY
CHINA	30,000	20,000	12300K	CHINESE	D/K	6
HONG KONG	20,000	40,000	12300K	CHINESE	I	6
SINGAPANDE	-10,000	40,000	12300K	ENGLISH	B/G	6
AFRICA	-10,000	40,000	12300K	ENGLISH	B/G	6
MID-EAST	30,000	20,000	18000K	ARABIC	B/G	6
RUSSIA	45,000	20,000	7500K	RUSSIAN	D/K	2
AUSTRALIA	-50,000	20,000	12300K	ENGLISH	B/G	6

*NOTE FOR OSD TYPE

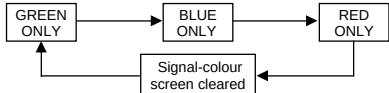
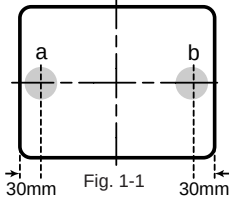
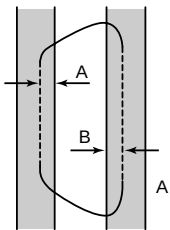
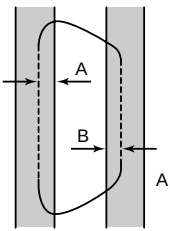
6 : ENGLISH/CHINESE/FRENCH/ARABIC/MALAY/RUSSIAN

2 : ENGLISH/RUSSIAN

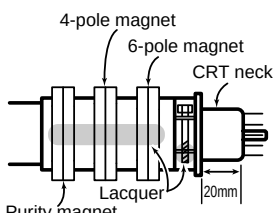
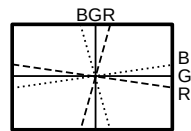
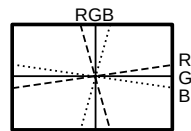
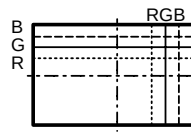
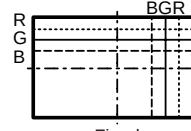
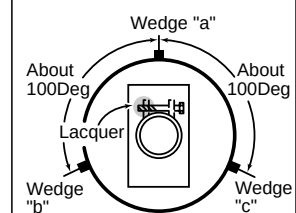
PIF ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform or others
1	Tuner IFT (PRESET)	- Get the tuner ready to receive the CH. E - 9 signal, but with no signal input. Adjust the PLL data. - Connect the sweep generator's output cable to the tuner antenna. (RF SWEEP) - Adjust the sweep generator's to 80dBμV. - Connect the response lead (use LOW IMPEDANCE probe with wave detectand ; see Fig.1) to the tuner's IF output terminal. (This terminal must have the probe alone connected). - Set the RF AGC to 0 - 6 V with no saturation with the waveform. - Adjust the tuner IF coil to obtain the waveform as shown in Fig. 2. Note: Be sure to keep the tuner cover in position during this adjustment.	 Fig.1  Fig.2
2	RF-AGC TAKE OVER POINT ADJUSTMENT (I²C BUS CONTROL) (AUTO & MANUAL ADJ)	- Receive "PAL COLOUR BAR" signal. - Signal Strength: $56 \pm 1 \text{ dB}\mu\text{V}$ (75 ohm open) - Connect the oscilloscope to TP201 (Tuner's AGC Terminal) as shown in Fig. 3-1.  Fig. 3-1 - Call "V01" mode in service mode. Adjust the "V01" bus data to obtain the Tuner output pin drop 0.1~1.0V below maximum voltage. - Change the antenna input signal to 63~67dBμV, and make sure there is no noise. - Turn up the input signal to 90~95 dBμV to be sure that there is no cross modulation beat.	* for Auto ADJ - Receive "PAL COLOUR BAR" signal. signal strength: $56 \pm 1 \text{ dB}\mu\text{V}$ (75 ohm open) - Go to service mode. - Go to service data V01, press R/C to operate auto key (Hex C1) and confirm the 'OK' display on the screen. - If appear NG, increase data some step and pls repeat step 2 again. - proceed step 4 & 5 in manual mode.

PURITY ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform or others
1	PURITY ADJ.	- Receive the GREEN-ONLY signal. Adjust the beam current to $\sim 700 \mu\text{A}$. - Degauss the CRT enough with the degaussing coil. Note: Follow the Job Instruction Sheet to adjust the magnetic field. Vertical Bv: $+0.030 \text{ mT}$ (0.30 gauss) Horizontal Bh: $+0.020 \text{ mT}$ (0.20 gauss) (Reference: page 7-1) - Maintain the purity magnet at the zero magnetic field and keep the static convergence roughly adjusted. - Observe the points a, b as shown in Fig. 1-1 through the microscope. Adjust the landings to A rank requirement. - Andient the raster rotation to 0 eastward. - Tighten up the deflection coil screws. - Tightening tandque: $108 \pm 20 \text{ N}$ ($11 \pm 2 \text{ kgf}$) - Make sure the CRT corners landing meet the A rank requirements. If not, stick the magnet sheet to candrect it. Note: This adjustment must be done after warming up the unit for 30 minutes and longer with a beam current over $700 \mu\text{A}$. Note: Set the service mode by JA304 & JA307 (shandt) then press factandly process R/C RGB key to change to RGB mono colour mode. * for the following colours press R/C RGB(Hex 7E) key to change. 	 Fig. 1-1  Fig. 1-2 Rank "A" (on the right of the CRT)  Fig. 1-3 Rank "A" (on the left of the CRT) * Press R/C RGB key for 1 second in NORMAL MODE, the colour will change to RGB mono colour mode.

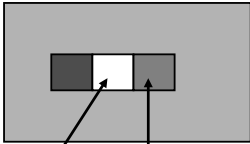
CONVERGENCE ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform or others
1	CONVERGENCE ADJ. (To be done after the purity adjustment.)	1. Receive the "Crosshatch Pattern" signal. 2. Using the remote controller, call NORMAL mode. Static convergence 1. Turn the 4-pole magnet to a proper opening angle in adder to superpose the blue and red colours. 2. Turn the 6-pole magnet to a proper opening angle in adder to superpose the green colour over the blue and red colours. Dynamic convergence 1. Adjust the convergence on the fringes of the screen in the following steps. a) Fig. a: Drive the wedge at point "a" and swing the deflection coil upward. b) Fig. b: Drive the wedge at point "b" and "c" and swing the deflection coil downward. c) Fig. c: Drive the "c" wedge deeper and swing the deflection coil rightward. d) Fig. d: Drive the "b" wedge deeper and swing the deflection coil leftward. 2. Fix all the wedges on the CRT and apply glass tape over them. 3. Apply lacquer to the deflection yoke lock screw, magnet unit (purity, 4-pole, 6-pole magnets) and magnet unit lock screw. Finally received the Red-only and Blue-only signals to make sure there is no other colours on the screen. 	 Fig. a  Fig. b  Fig. c  Fig. d 

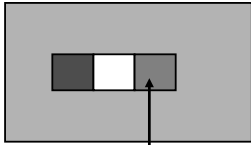
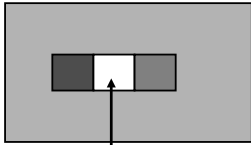
H-VCO, VIF-VCO & S-TRAP fo ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform or others
1	H-VCO ADJ (I ² C BUS CONTROL) (AUTO & MANUAL ADJ)	(MANUAL ADJ) 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data V03. 3) Connect oscilloscope to IC801 pin11, adj V03 until freq become 15.625 ± .15 KHz (Auto Adj) 1) In No signal (RASTER) condition. 2) Go to service mode. 3) Choose service data V03, by pressing R/C Auto (Hex C1) key, OSD will appear "OK" at screen. 4) If appear "NG" pls repeat step 3.	
2	VIF-VCO ADJ (I ² C BUS CONTROL) (AUTO & MANUAL ADJ)	(Manual ADJ) 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data V02. 3) Connect oscilloscope to IC801 pin2, adj V02 until voltage become 2.5 ± 1 V. (Auto Adj) 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data V02. 3) Press the R/C Auto (Hex C1) key, OSD will appear "OK" at screen. 4) If appear "NG" pls repeat step 3.	
3	S-TRAP fo ADJ (I ² C BUS CONTROL) (AUTO & MANUAL ADJ)	(Manual ADJ) 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data V21. 3) Connect oscilloscope to TP 801, adj V21 until voltage become Min (below 5 V). 4) After that pls adj service data V20 & V24 same as "V21", V22 to "V21-1", V23 to "V21+2". (Auto Adj) 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data V21. 3) Press the R/C Auto (Hex C1) key, OSD will appear "OK" at screen. 4) If appear "NG" pls repeat step 3.	

SCREEN, WHITE BALANCE, SUB-BRIGHTNESS & SUB-CONTRAST (1) ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform or others
1	SCREEN ADJUSTMENT (I²C BUS CONTROL)	1) In window pattern signal condition. 2) Go to service mode, select V00, then. 3) pressing R/C key "7" (Hex E0) to increase & "flash back" (Hex E4) to decrease R-Drive data, OSD will appear "R-D". 4) pressing R/C key "8" (Hex 10) to increase & "0" (Hex 50) to decrease B-Drive data, OSD will appear "B-D". 5) pressing R/C key "1" (Hex 80) to increase & "4" (Hex 20) to decrease R-Cut data, OSD will appear "R-C". 6) pressing R/C key "2" (Hex 40) to increase & "5" (Hex A0) to decrease G-Cut data, OSD will appear "G-C". 7) pressing R/C key "3" (Hex C0) to increase & "6" (Hex 60) to decrease B-Cut data, OSD will appear "B-C". 8) By pressing R/C key S-Mute(Hex E8), R-D auto switch to 63, B-D auto switch to 63, R-C auto switch to 127, G-C auto switch to 127, B-C auto switch to 127, Sub-Brightness V06 auto switch to 127. Y-mute & Vertical off, screen will be in vertical cut-off condition. 9) Adjust the Screen so that cut-off line appear in low bright, then judge that whether the cut-off line appear in Red and Green or Blue colour, in this condition between R-C & G-C & B-C, fix the data of the colour appear in cut-off line and adj the other two cut-off data so that cut-off line colour become white. 10) Turn the screen VR of FBT so that cut-off line just disappear and use R/C by pressing key S-Mute (Hex E8) to disable the Y-mute & V-cut so that picture appear in normal mode.	
2	WHITE BALANCE ADJ (to be done after screen adj) (I²C BUS CONTROL)	1) WHITE (HIGH BEAM) (In Window Pattern Signal) First use Minolta Colour Analyzer CA100, let the gun point at Black position (as drawing attach), Adj V06 until BRIGHTNESS Y become 5 cd/m2, then let the gun point at White position (as drawing attach), Adj V04 until BRIGHTNESS Y become 200 cd/m2, Adj the R-D & B-D until the axis of colour temperature become. ** X=300, Y=310 7500 K X=272, Y=275 12300 K 2) BLACK (LOW BEAM) (In Window Pattern Signal) Let the gun point at Black position, if the colour temperature data shift away from the data adjusted in step 1, adjust R-C,G-C & B-C but between them, first coland appear in Screen adj item 1)-9 is fixed, adj the other two so that to obtain the similar axis as above. **Repeat step 1 & 2 to get a regulated position.	 White Black WINDOW PATTERN SIGNAL

SCREEN, WHITE BALANCE, SUB-BRIGHTNESS & SUB-CONTRAST (2) ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform or others
3	SUB-BRIGHTNESS (to be done after screen, white balance adj) (I²C BUS CONTROL)	1) In window pattern signal condition. 2) Using Minolta Colour Analyzer CA-100, let the gun point at Black position (as attach drawing), adjust V06 Bus data until BRIGHTNESS Y = 3 ± 0.5 cd/m2.	 Black WINDOW PATTERN SIGNAL
4	SUB-CONTRAST (to be done after screen, white balance adj, sub-brightness adj) (I²C BUS CONTROL)	1) In Window Pattern Signal condition. 2) Using Minolta Colour Analyzer CA-100, let the gun point at White position (as attach drawing), adjust V04 Bus data until BRIGHTNESS Y equal to below data. BRIGHTNESS Y = 200 ± 10 cd/m2.	 White WINDOW PATTERN SIGNAL
5	MAX Beam Check	1) Receive the "Monoscope Pattern" signal. 2) Press R/C to set Picture NORMAL condition. 3) Connect the DC milliammeter between TP 603 (+) & TP 602 (-). (Full Scale: 3mA Range) 4) Beam current must be within $1150 \pm 50\mu A$.	

HANDIZONTAL, VERTICAL, DEFLECTION LOOP and FOCUS ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform or others
1	H-SHIFT (I ² C BUS CONTROL) (to be done after purity adj)	1) Receive Monoscope Pattern Signal (PAL 50 Hz) 2) Choose the service data V13 . 3) Adjust the V13 bus data to have a balance position to spec of A=B (as attach drawing) 4) If cannot make it to A=B , adjust from the best point so that B slitley smaller than A .	
2	V-SHIFT (I ² C BUS CONTROL) (to be done after purity adj)	1) Receive Monoscope Pattern Signal (PAL 50 Hz) 2) Choose the service data V12 . 3) Adjust V12 bus data to have a most acceptable vertical position, the monoscope pattern should be Balance in vertical position. Note: A mark (Tube middle mark) must same and nearest lower position to the B line (monoscope middle line) refer to attach drawing.	
3	V-SIZE (I ² C BUS CONTROL) (to be done after purity, V-shift adj)	1) Receive Monoscope Pattern Signal (PAL 50 Hz) 2) Choose the service data V11 . 3) Adjust V11 bus data until the overscan become $10 \pm 2.5\%$ Caution1: Pls aging TV more than 10 minutes before adjustment. Caution2: FOR H-shift & V-shift & V-size adj, after adj pls switch to Monoscope pattern signal (NTSC 60 Hz) to confirm all position is same.	
4	SUB-SHARPNESS	1) Confirm Service data V08 is 43 .	
5	Focus	1) Receive the "Monoscope Pattern" signal. 2) Press R/C to set Picture NORMAL condition. 3) Adjust the focus control to get the best focusing.	

PAL CHROMA ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform or others
1	SUB COLOUR (I ² C BUS CONTROL) (to be done aftersub-picture, sub-tint adj)	1) Receive the "PAL Colour Bar" signal. 2) Press R/C to set Picture Normal condition. 3) Connect the oscilloscope to R-Amp Transistor Base(TP 851). Range : 100mV/Div (AC) (Using 10:1 Probe) Sweep Time : 10 μ sec/Div 4) Using the R/C call V05 in SERVICE mode. Adjust V05 bus data, so that the 75% White & Red portions of PAL Colour Bar be at the same level shown as Fig 1-1. 5) Clear the SERVICE mode.	 Fig. 1-1

NTSC CHROMA ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform or others
1	SUB-TINT (I ² C BUS CONTROL)	1) Receive the "NTSC3.58 Colour Bar" signal thru AV in. 2) Connect the oscilloscope to B-Amp Transistand Base (TP853). • Range : 100mV/Div. (AC)(Use Probe 10:1) • Sweep time : 10 μ sec/Div. 3) In Service mode, go to V07 , press R/C Y-mute(Hex E4) . 4) Call the " V07 " data in service mode. Adjust the " V07 " bus data to obtain the waveFORM shown as Fig. 1-1. 5) Disable Y-Mute by pressing key(Hex E4) , then Clear the SERVICE mode.	 Fig. 1-1

SECAM CHROMA ADJUSTMENT

No.	Adjustment point	Adjustment procedure/conditions	Waveform or others
1	SECAM BLACK LEVEL R-Y/B-Y (I ² C BUS CONTROL)	1) Receive "SECAM COLOUR BAR" signal. 2) In the service mode, select service data V14 . 3) Connect oscilloscope to TP 801 . • Range : 200mV/Div. (AC)(Use Probe 10:1) • Sweep time : 20 μ sec/Div. 4) Adjust the V14 so that the offset of R-Y is minimum, shown in Fig 2-1(b) , it means adjust the offset of between No signal line and Signal line to minimum. 5) In the service mode, select service data V15 . 6) Connect oscilloscope to TP 801 . • Range : 200mV/Div. (AC)(Use Probe 10:1) • Sweep time : 20 μ sec/Div. 7) Adjust the V15 so that the offset of B-Y to minimum, shown in Fig 2-2(b) , it means adjust the offset of between No signal line and Signal line to minimum.	 Fig 2-1(a) Fig 2-1(b) Fig 2-2(a) Fig 2-2(b)

SIF (NICAM/IGR) ADJUSTMENT

No.	Adjusting point	Adjusting procedure/conditions	Waveform or others
1	VCO COIL T2300	1. Receive "PAL COLOUR BAR" signal. 2. Connect DC Voltmeter to Main Board socket SC304 pin 1. 3. Check and turn T2300 counter-clockwise (Left) so that DC voltmeter appear 0V, then turn it clockwise (Right) so that DC voltmeter appear 5V. After that , turn T2300 counter-clockwise (Left) until DC voltmeter appear 2.5 ± 0.1 Vdc. ** UNIT BOARD ADJUSTMENT Vcc $5V \pm 0.1Vdc$ IF Input Frequency $38.9MHz \pm 10KHz$ Adjust T2300 unit TP2300 (NICAM BOARD TEST POINT) become $2.5 \pm 1.0Vdc$. Check after assembly NICAM BOARD Test point: Main Board socket SC304 pin 1. Preset selected reception freq (AFT OFF) Check Voltage $2.5 \pm 0.1Vdc$. Precaution: The Vcc, fo and other factors are considered in the unit board of the 1.0V tolerance which differ from the adjustment accuracy.	

PROTECTAND OPERATION CHECKING

No.	Adjustment point	Adjustment procedure/conditions	Waveform or others
1	BEAM PRO- TECTOR	1) Receive "Monoscope Pattern" signal. 2) Set CONTRAST MAX. 3) Set BRIGHT MAX. 4) During the Collector & Emitter of Q853/4/5 short, make sure the protector ON and switch to standby mode.	* Select one of Q853/4/5 to do each short.
2	H, V PROTEC- TOR	1) Receive "Monoscope Pattern" signal. 2) Connect output of Bias Box to D602 cathode (C602 positive). 3) Set voltage of Bias Box to 18V and make sure the protector is not work. 4) Set voltage of Bias Box to 24.5V, and make sure the protector is work.	
3	OTHER PRO- TECTOR	1) Once finish rectified Electrolytic Capacitand short testing in +B line, check all possible damaged components on +B line. (Use random selected set for inspection)	

A/V INPUT, OUTPUT & COMPONENT IN CHECKING

No.	Adjustment point	Adjustment procedure/conditions	Waveform or others
1	VIDEO AND AUDIO OUTPUT CHECK	1) Receive the "PAL Colour Bar" signal (100% White Colour Bar, Sound 400 Hz 100% Mod.) 2) Terminate the Video output with a 75 ohm impedance. Make sure the output is as specified (1.0 Vp-p ± 3 dB). 3) Terminate the Audio output with a 75 ohm impedance. Make sure the output is as specified (1.2 Vp-p ± 3 dB).	
2	VIDEO AND AUDIO INPUT CHECK	1) Using the TV/VIDEO key on the remote controller, make sure that the modes change in andder of TV, AV1, *AV2 & TV again and the video & audio output are accandding to the input terminal for each mode.	
3	COMPONENT IN CHECK	1) Connect YUV & Audio signal to Component In terminal and Audio terminal. 2) Using the TV/VIDEO key on the remote controller, press it until the modes change to COMPANDNENT, confirm output is appear.	

FUNCTION OPERATION CHECKING (VIDEO AND AUDIO)

No.	Adjustment point	Adjustment procedure/conditions	Waveform or others
1	CONTRAST key	1) Receive "Monoscope Pattern" signal. 2) Set MENU, then go into PICTURE mode to select CONTRAST. 3) Press Volume Up/Down key to check whether the CONTRAST effect is OK or not.	
2	COLOUR key	1) Receive "Colour Bar" signal. 2) Set MENU, then go into PICTURE mode to select COLOUR. 3) Press Volume Up/Down key to check whether the COLOUR effect is OK or not.	
3	BRIGHTNESS key	1) Receive "Monoscope Pattern" signal. 2) Set MENU, then go into PICTURE mode to select BRIGHTNESS. 3) Press Volume Up/Down key to check whether the BRIGHTNESS effect is OK or not.	
4	TINT key	1) Receive the "NTSC Colour Bar" signal thru AV in. 2) Set MENU, then go into PICTURE mode to select TINT. 3) Press Volume Up/Down key to check TINT, UP FOR GREEN direction and DOWN FOR PURPLE direction whether is OK or not.	
5	SHARPNESS Key	1) Receive "Monoscope Pattern" signal. 2) Set MENU, then go into PICTURE mode to select SHARPNESS. 3) Press Volume Up/Down key to check whether the SHARPNESS effect is OK or not.	
6	CH DISPLAY COLOUR	1) All Ch (1~99) will have an OSD display of the channel number in green colour under AFT ON condition.	
7	NORMAL Key	1) Once in PICTURE Mode, and the NORMAL key is pressed, all the settings will be present to normal setting. (Normal setting value FOR every mode). ● CONTRAST : MAX ● COLOUR : CENTER ● BRIGHTNESS : CENTER ● TINT : CENTER ● SHARPNESS : CENTER	Notes: If nothing is display mean contrast, colour, bright, tint, sharpness are all in normal setting.
8	WHITE TEMP	1) Receive "Monoscope Pattern" signal. 2) Set MENU, then go into PICTURE mode to select WHITE TEMP. 3) Press Volume Up/Down key to check WHITE TEMP function The back ground will change to (shift right) bluish and (shift left) reddish.	

FUNCTION OPERATION CHECKING (VIDEO AND AUDIO) CONTINUED

No.	Adjustment point	Adjustment procedure/conditions	Waveform or others						
9	COLOUR SYSTEM	1) Receive the "PAL COLOUR BAR" signal, press MENU, choose CH-SETTING to select COLOUR modes except PAL, check the COLOUR is not working properly. Then, select the "PAL" mode. Check again its colour so that it is working properly. 2) Receive "SECAM COLOUR BAR" signal, press MENU, choose CH-SETTING to select COLOUR modes except SECAM, check the COLOUR is not working properly. Then, select the "SECAM" mode. Check again its colour so that it is working properly. 3) Receive "NTSC 4.43" signal, press MENU, choose CH-SETTING to select COLOUR modes except N443, check the COLOUR is not working properly. Then, select the N443 mode. Check again its colour so that it is working properly. 4) Receive "NTSC 3.58 COLOUR BAR" signal thru AV, press MENU, choose CH-SETTING to select COLOUR modes except N358, check the COLOUR is not working properly. Then, select the N358 mode. Check again its colour so that it is working properly.							
10	SOUND SYSTEM	1) Receive "PAL-D/K" signal, press MENU, choose CH-SETTING then go into SOUND mode to select B/G, I, M. Check the sound output is not working properly. Select D/K and check the sound output to make sure it is working properly. 2) Receive "PAL-I" signal, press MENU, choose CH-SETTING then go into SOUND mode to select B/G, D/K, M. Check the sound output is not working properly. Select I and check the sound output to make sure it is working properly. 3) Receive "PAL-B/G" signal, press MENU, choose CH-SETTING then go into SOUND mode to select I, D/K, M. Check the sound output is not working properly. Select B/G and check the sound output to make sure it is working properly. 4) Receive "NTSC-M" signal, press MENU, choose CH-SETTING then go into SOUND mode to select B/G, I, D/K. Check the sound output is not working properly. Select M and check the sound output to make sure it is working properly.							
11	NOISE MUTE CHECKING	1) Receive "PAL COLOUR BAR" signal. 2) Turn up the volume control to maximum, make sure the sound is heard from the speakers. Then put the unit in no signal state. 3) Check the sound mute is effective. 4) Finally turn sound level of CTV to minimum.							
12	OSD LANGUAGE QUANTITY CHECK	Check OSD LANGUAGE quantity and type for respect model. (2 LANGUAGES) <table><tr><td>QUANTITY</td><td>ENGLISH</td><td>RUSSIAN</td></tr><tr><td>2</td><td>O</td><td>O</td></tr></table>	QUANTITY	ENGLISH	RUSSIAN	2	O	O	
QUANTITY	ENGLISH	RUSSIAN							
2	O	O							

HEADPHONE JACK CHECKING

No.	Adjustment point	Adjustment procedure/conditions	Waveform or others
1	HEADPHONE OUTPUT CHECKING	1) Receive PAL COLOUR BAR with SOUND 400Hz, 100% MODULATION ($\pm 50\text{kHz}$ Dev). 2) Maximum volume, and check the headphone output with 400Hz sound and no sound out from speaker.	

SHOCK TEST CHECKING

No.	Adjustment point	Adjustment procedure/conditions	Waveform or others
1	SHOCK TEST	1) Hit at the top of TV set FOR two time. 2) Check TV set not damage and TV operation operate candrectly.	

ROM-CORRECTION CHECKING

No.	Adjustment point	Adjustment procedure/conditions				Waveform or others			
1	ROM-CORRECTION	1) Go to the service mode, press "MENU" button until the attach service items appears.				INFO			
		2) Check the ROM-correction status by monitoring the screen, follow the model's setting.				SLV1 0 0			
						SLV2 0 0			
						SLV3 0 0			
						SLV4 0 0			

MEMORY MAP

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS (HEX)	DATA								MICON DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL SETTING DATA	REMARK
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE		
00	EEPROM INITIALIZATION JUDGEMENT BYTE-0								7A	00-FF							
01	EEPROM INITIALIZATION JUDGEMENT BYTE-1								73	00-FF							
02	EEPROM INITIALIZATION JUDGEMENT BYTE-2								71	00-FF							
03	EEPROM INITIALIZATION JUDGEMENT BYTE-3								79	00-FF							
04	ROM VERSION								00	00-FF							
05	SOFTWARE VERSION (HIGH BYTE)								02	00-FF						(2) Change default value 01 to 02.	
06	SOFTWARE VERSION (LOW BYTE)								0B	00-FF						(1) Change default value 14 to 1B. (2) Change default value 1B to 0B.	
07																	
08	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 0
09	TUNING FREQUENCY (HIGH BYTE)									00-FF							
0A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 1
0B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
0C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 2
0D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
0E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 3
0F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
10	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 4
11	TUNING FREQUENCY (HIGH BYTE)									00-FF							
12	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 5
13	TUNING FREQUENCY (HIGH BYTE)									00-FF							
14	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 6
15	TUNING FREQUENCY (HIGH BYTE)									00-FF							
16	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 7
17	TUNING FREQUENCY (HIGH BYTE)									00-FF							
18	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 8
19	TUNING FREQUENCY (HIGH BYTE)									00-FF							
1A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 9
1B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
1C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 10
1D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
1E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 11
1F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
20	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 12
21	TUNING FREQUENCY (HIGH BYTE)									00-FF							
22	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 13
23	TUNING FREQUENCY (HIGH BYTE)									00-FF							
24	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 14
25	TUNING FREQUENCY (HIGH BYTE)									00-FF							
26	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 15
27	TUNING FREQUENCY (HIGH BYTE)									00-FF							
28	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 16
29	TUNING FREQUENCY (HIGH BYTE)									00-FF							
2A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 17
2B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
2C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 18
2D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
2E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 19
2F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
30	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 20
31	TUNING FREQUENCY (HIGH BYTE)									00-FF							
32	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 21
33	TUNING FREQUENCY (HIGH BYTE)									00-FF							
34	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 22
35	TUNING FREQUENCY (HIGH BYTE)									00-FF							
36	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 23
37	TUNING FREQUENCY (HIGH BYTE)									00-FF							
38	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 24
39	TUNING FREQUENCY (HIGH BYTE)									00-FF							
3A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 25
3B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
3C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 26
3D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
3E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 27
3F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
MODEL								MODEL									
A3HE1EFV3J																	
LETTER NO.								LETTER NO.									

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)																	
ADDRESS (HEX)	DATA								MICON DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL SETTING DATA	REMARK
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE		
40	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 28
41	TUNING FREQUENCY (HIGH BYTE)									00-FF							
42	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 29
43	TUNING FREQUENCY (HIGH BYTE)									00-FF							
44	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 30
45	TUNING FREQUENCY (HIGH BYTE)									00-FF							
46	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 31
47	TUNING FREQUENCY (HIGH BYTE)									00-FF							
48	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 32
49	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 33
4B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 34
4D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 35
4F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
50	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 36
51	TUNING FREQUENCY (HIGH BYTE)									00-FF							
52	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 37
53	TUNING FREQUENCY (HIGH BYTE)									00-FF							
54	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 38
55	TUNING FREQUENCY (HIGH BYTE)									00-FF							
56	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 39
57	TUNING FREQUENCY (HIGH BYTE)									00-FF							
58	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 40
59	TUNING FREQUENCY (HIGH BYTE)									00-FF							
5A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 41
5B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
5C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 42
5D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
5E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 43
5F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
60	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 44
61	TUNING FREQUENCY (HIGH BYTE)									00-FF							
62	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 45
63	TUNING FREQUENCY (HIGH BYTE)									00-FF							
64	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 46
65	TUNING FREQUENCY (HIGH BYTE)									00-FF							
66	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 47
67	TUNING FREQUENCY (HIGH BYTE)									00-FF							
68	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 48
69	TUNING FREQUENCY (HIGH BYTE)									00-FF							
6A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 49
6B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
6C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 50
6D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
6E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 51
6F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
70	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 52
71	TUNING FREQUENCY (HIGH BYTE)									00-FF							
72	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 53
73	TUNING FREQUENCY (HIGH BYTE)									00-FF							
74	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 54
75	TUNING FREQUENCY (HIGH BYTE)									00-FF							
76	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 55
77	TUNING FREQUENCY (HIGH BYTE)									00-FF							
78	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 56
79	TUNING FREQUENCY (HIGH BYTE)									00-FF							
7A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 57
7B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
7C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 58
7D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
7E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 59
7F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
MODEL									MODEL								
A3HE1EFV3J																	
LETTER NO.									LETTER NO.								

MEMORY MAP

(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS (HEX)	DATA							MICON DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL SETTING DATA	REMARK	
	D7	D6	D5	D4	D3	D2	D1				D0	CHECK DATA	CHECK TYPE	CHECK DATA			CHECK TYPE
80	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 60	
81	TUNING FREQUENCY (HIGH BYTE)								00-FF								
82	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 61	
83	TUNING FREQUENCY (HIGH BYTE)								00-FF								
84	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 62	
85	TUNING FREQUENCY (HIGH BYTE)								00-FF								
86	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 63	
87	TUNING FREQUENCY (HIGH BYTE)								00-FF								
88	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 64	
89	TUNING FREQUENCY (HIGH BYTE)								00-FF								
8A	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 65	
8B	TUNING FREQUENCY (HIGH BYTE)								00-FF								
8C	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 66	
8D	TUNING FREQUENCY (HIGH BYTE)								00-FF								
8E	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 67	
8F	TUNING FREQUENCY (HIGH BYTE)								00-FF								
90	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 68	
91	TUNING FREQUENCY (HIGH BYTE)								00-FF								
92	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 69	
93	TUNING FREQUENCY (HIGH BYTE)								00-FF								
94	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 70	
95	TUNING FREQUENCY (HIGH BYTE)								00-FF								
96	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 71	
97	TUNING FREQUENCY (HIGH BYTE)								00-FF								
98	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 72	
99	TUNING FREQUENCY (HIGH BYTE)								00-FF								
9A	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 73	
9B	TUNING FREQUENCY (HIGH BYTE)								00-FF								
9C	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 74	
9D	TUNING FREQUENCY (HIGH BYTE)								00-FF								
9E	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 75	
9F	TUNING FREQUENCY (HIGH BYTE)								00-FF								
A0	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 76	
A1	TUNING FREQUENCY (HIGH BYTE)								00-FF								
A2	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 77	
A3	TUNING FREQUENCY (HIGH BYTE)								00-FF								
A4	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 78	
A5	TUNING FREQUENCY (HIGH BYTE)								00-FF								
A6	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 79	
A7	TUNING FREQUENCY (HIGH BYTE)								00-FF								
A8	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 80	
A9	TUNING FREQUENCY (HIGH BYTE)								00-FF								
AA	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 81	
AB	TUNING FREQUENCY (HIGH BYTE)								00-FF								
AC	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 82	
AD	TUNING FREQUENCY (HIGH BYTE)								00-FF								
AE	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 83	
AF	TUNING FREQUENCY (HIGH BYTE)								00-FF								
B0	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 84	
B1	TUNING FREQUENCY (HIGH BYTE)								00-FF								
B2	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 85	
B3	TUNING FREQUENCY (HIGH BYTE)								00-FF								
B4	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 86	
B5	TUNING FREQUENCY (HIGH BYTE)								00-FF								
B6	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 87	
B7	TUNING FREQUENCY (HIGH BYTE)								00-FF								
B8	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 88	
B9	TUNING FREQUENCY (HIGH BYTE)								00-FF								
BA	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 89	
BB	TUNING FREQUENCY (HIGH BYTE)								00-FF								
BC	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 90	
BD	TUNING FREQUENCY (HIGH BYTE)								00-FF								
BE	TUNING FREQUENCY (LOW BYTE)								00-FF							POS 91	
BF	TUNING FREQUENCY (HIGH BYTE)								00-FF								
MODEL								MODEL									
A3HE1EFV3J																	
LETTER NO.								LETTER NO.									

MEMORY MAP (Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

[illegible]

MEMORY MAP

(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS (HEX)	DATA								MICON DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL SETTING DATA	REMARK
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE		
100			S-SYSTEM (POS0)			C-SYSTEM (POS0)			00	00-34							S-SYSTEM 0: BIG 1: I 2: DIK 3: M
101			S-SYSTEM (POS1)			C-SYSTEM (POS1)			00	00-34							
102			S-SYSTEM (POS2)			C-SYSTEM (POS2)			00	00-34							
103			S-SYSTEM (POS3)			C-SYSTEM (POS3)			00	00-34							
104			S-SYSTEM (POS4)			C-SYSTEM (POS4)			00	00-34							C-SYSTEM 0: AUTO 1: PAL 2: SECAM 3: N443 4: N358
105			S-SYSTEM (POS5)			C-SYSTEM (POS5)			00	00-34							
106			S-SYSTEM (POS6)			C-SYSTEM (POS6)			00	00-34							
107			S-SYSTEM (POS7)			C-SYSTEM (POS7)			00	00-34							
108			S-SYSTEM (POS8)			C-SYSTEM (POS8)			00	00-34							
109			S-SYSTEM (POS9)			C-SYSTEM (POS9)			00	00-34							
10A			S-SYSTEM (POS10)			C-SYSTEM (POS10)			00	00-34							
10B			S-SYSTEM (POS11)			C-SYSTEM (POS11)			00	00-34							
10C			S-SYSTEM (POS12)			C-SYSTEM (POS12)			00	00-34							
10D			S-SYSTEM (POS13)			C-SYSTEM (POS13)			00	00-34							
10E			S-SYSTEM (POS14)			C-SYSTEM (POS14)			00	00-34							
10F			S-SYSTEM (POS15)			C-SYSTEM (POS15)			00	00-34							
110			S-SYSTEM (POS16)			C-SYSTEM (POS16)			00	00-34							
111			S-SYSTEM (POS17)			C-SYSTEM (POS17)			00	00-34							
112			S-SYSTEM (POS18)			C-SYSTEM (POS18)			00	00-34							
113			S-SYSTEM (POS19)			C-SYSTEM (POS19)			00	00-34							
114			S-SYSTEM (POS20)			C-SYSTEM (POS20)			00	00-34							
115			S-SYSTEM (POS21)			C-SYSTEM (POS21)			00	00-34							
116			S-SYSTEM (POS22)			C-SYSTEM (POS22)			00	00-34							
117			S-SYSTEM (POS23)			C-SYSTEM (POS23)			00	00-34							
118			S-SYSTEM (POS24)			C-SYSTEM (POS24)			00	00-34							
119			S-SYSTEM (POS25)			C-SYSTEM (POS25)			00	00-34							
11A			S-SYSTEM (POS26)			C-SYSTEM (POS26)			00	00-34							
11B			S-SYSTEM (POS27)			C-SYSTEM (POS27)			00	00-34							
11C			S-SYSTEM (POS28)			C-SYSTEM (POS28)			00	00-34							
11D			S-SYSTEM (POS29)			C-SYSTEM (POS29)			00	00-34							
11E			S-SYSTEM (POS30)			C-SYSTEM (POS30)			00	00-34							
11F			S-SYSTEM (POS31)			C-SYSTEM (POS31)			00	00-34							
120			S-SYSTEM (POS32)			C-SYSTEM (POS32)			00	00-34							
121			S-SYSTEM (POS33)			C-SYSTEM (POS33)			00	00-34							
122			S-SYSTEM (POS34)			C-SYSTEM (POS34)			00	00-34							
123			S-SYSTEM (POS35)			C-SYSTEM (POS35)			00	00-34							
124			S-SYSTEM (POS36)			C-SYSTEM (POS36)			00	00-34							
125			S-SYSTEM (POS37)			C-SYSTEM (POS37)			00	00-34							
126			S-SYSTEM (POS38)			C-SYSTEM (POS38)			00	00-34							
127			S-SYSTEM (POS39)			C-SYSTEM (POS39)			00	00-34							
128			S-SYSTEM (POS40)			C-SYSTEM (POS40)			00	00-34							
129			S-SYSTEM (POS41)			C-SYSTEM (POS41)			00	00-34							
12A			S-SYSTEM (POS42)			C-SYSTEM (POS42)			00	00-34							
12B			S-SYSTEM (POS43)			C-SYSTEM (POS43)			00	00-34							
12C			S-SYSTEM (POS44)			C-SYSTEM (POS44)			00	00-34							
12D			S-SYSTEM (POS45)			C-SYSTEM (POS45)			00	00-34							
12E			S-SYSTEM (POS46)			C-SYSTEM (POS46)			00	00-34							
12F			S-SYSTEM (POS47)			C-SYSTEM (POS47)			00	00-34							
130			S-SYSTEM (POS48)			C-SYSTEM (POS48)			00	00-34							
131			S-SYSTEM (POS49)			C-SYSTEM (POS49)			00	00-34							
132			S-SYSTEM (POS50)			C-SYSTEM (POS50)			00	00-34							
133			S-SYSTEM (POS51)			C-SYSTEM (POS51)			00	00-34							
134			S-SYSTEM (POS52)			C-SYSTEM (POS52)			00	00-34							
135			S-SYSTEM (POS53)			C-SYSTEM (POS53)			00	00-34							
136			S-SYSTEM (POS54)			C-SYSTEM (POS54)			00	00-34							
137			S-SYSTEM (POS55)			C-SYSTEM (POS55)			00	00-34							
138			S-SYSTEM (POS56)			C-SYSTEM (POS56)			00	00-34							
139			S-SYSTEM (POS57)			C-SYSTEM (POS57)			00	00-34							
13A			S-SYSTEM (POS58)			C-SYSTEM (POS58)			00	00-34							
13B			S-SYSTEM (POS59)			C-SYSTEM (POS59)			00	00-34							
13C			S-SYSTEM (POS60)			C-SYSTEM (POS60)			00	00-34							
13D			S-SYSTEM (POS61)			C-SYSTEM (POS61)			00	00-34							
13E			S-SYSTEM (POS62)			C-SYSTEM (POS62)			00	00-34							
13F			S-SYSTEM (POS63)			C-SYSTEM (POS63)			00	00-34							
MODEL									MODEL								
A3HE1EFV3J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS (HEX)	DATA								MICON DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL SETTING DATA	REMARK
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE		
140			S-SYSTEM (POS64)			C-SYSTEM (POS64)			00	00-34							
141			S-SYSTEM (POS65)			C-SYSTEM (POS65)			00	00-34							
142			S-SYSTEM (POS66)			C-SYSTEM (POS66)			00	00-34							
143			S-SYSTEM (POS67)			C-SYSTEM (POS67)			00	00-34							
144			S-SYSTEM (POS68)			C-SYSTEM (POS68)			00	00-34							
145			S-SYSTEM (POS69)			C-SYSTEM (POS69)			00	00-34							
146			S-SYSTEM (POS70)			C-SYSTEM (POS70)			00	00-34							
147			S-SYSTEM (POS71)			C-SYSTEM (POS71)			00	00-34							
148			S-SYSTEM (POS72)			C-SYSTEM (POS72)			00	00-34							
149			S-SYSTEM (POS73)			C-SYSTEM (POS73)			00	00-34							
14A			S-SYSTEM (POS74)			C-SYSTEM (POS74)			00	00-34							
14B			S-SYSTEM (POS75)			C-SYSTEM (POS75)			00	00-34							
14C			S-SYSTEM (POS76)			C-SYSTEM (POS76)			00	00-34							
14D			S-SYSTEM (POS77)			C-SYSTEM (POS77)			00	00-34							
14E			S-SYSTEM (POS78)			C-SYSTEM (POS78)			00	00-34							
14F			S-SYSTEM (POS79)			C-SYSTEM (POS79)			00	00-34							
150			S-SYSTEM (POS80)			C-SYSTEM (POS80)			00	00-34							
151			S-SYSTEM (POS81)			C-SYSTEM (POS81)			00	00-34							
152			S-SYSTEM (POS82)			C-SYSTEM (POS82)			00	00-34							
153			S-SYSTEM (POS83)			C-SYSTEM (POS83)			00	00-34							
154			S-SYSTEM (POS84)			C-SYSTEM (POS84)			00	00-34							
155			S-SYSTEM (POS85)			C-SYSTEM (POS85)			00	00-34							
156			S-SYSTEM (POS86)			C-SYSTEM (POS86)			00	00-34							
157			S-SYSTEM (POS87)			C-SYSTEM (POS87)			00	00-34							
158			S-SYSTEM (POS88)			C-SYSTEM (POS88)			00	00-34							
159			S-SYSTEM (POS89)			C-SYSTEM (POS89)			00	00-34							
15A			S-SYSTEM (POS90)			C-SYSTEM (POS90)			00	00-34							
15B			S-SYSTEM (POS91)			C-SYSTEM (POS91)			00	00-34							
15C			S-SYSTEM (POS92)			C-SYSTEM (POS92)			00	00-34							
15D			S-SYSTEM (POS93)			C-SYSTEM (POS93)			00	00-34							
15E			S-SYSTEM (POS94)			C-SYSTEM (POS94)			00	00-34							
15F			S-SYSTEM (POS95)			C-SYSTEM (POS95)			00	00-34							
160			S-SYSTEM (POS96)			C-SYSTEM (POS96)			00	00-34							
161			S-SYSTEM (POS97)			C-SYSTEM (POS97)			00	00-34							
162			S-SYSTEM (POS98)			C-SYSTEM (POS98)			00	00-34							
163			S-SYSTEM (POS99)			C-SYSTEM (POS99)			00	00-34							
164			C-SYSTEM (AV2)			C-SYSTEM (AV1)			00	00-44							
165																	
166																	
167																	
168																	
169																	
16A																	
16B																	
16C																	
16D																	
16E																	
16F																	
170																	
171																	
172																	
173							TV/AV		00	0(TV), 1(AV1), 2(AV2)							
174			LAST CHANNEL POSITION						01	00-63							
175			FLASH BACK POSITION						01	00-FF							
176			ROM CORRECTION-1 ID							00-FF							
177			ROM CORRECTION-1 HIGH BYTE ADDRESS							00-FF							
178			ROM CORRECTION-1 LOW BYTE ADDRESS							00-FF							
179			ROM CORRECTION-1 DATA LENGTH							00-FF							
17A			ROM CORRECTION-1 CHECKSUM							00-FF							
17B			ROM CORRECTION-2 ID							00-FF							
17C			ROM CORRECTION-2 HIGH BYTE ADDRESS							00-FF							
17D			ROM CORRECTION-2 LOW BYTE ADDRESS							00-FF							
17E			ROM CORRECTION-2 DATA LENGTH							00-FF							
17F			ROM CORRECTION-2 CHECKSUM							00-FF							
MODEL									MODEL								
A3HE1EFV3J																	
LETTER NO.									LETTER NO.								

(2) Remove
SLV1~SLV6 to
Sheet
EEPROM
MAP08(1C0H~
1CBH)

MEMORY MAP

(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS (HEX)	DATA								MICON DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL	
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
180										00-FF							
181										00-FF							
182										00-FF							
183										00-FF							
184										00-FF							
185										00-FF							
186										00-FF							
187										00-FF							
188										00-FF							
189										00-FF							
18A										00-FF							
18B										00-FF							
18C										00-FF							
18D										00-FF							
18E										00-FF							
18F										00-FF							
190										00-FF							
191										00-FF							
192										00-FF							
193										00-FF							
194										00-FF							
195										00-FF							
196										00-FF							
197										00-FF							
198										00-FF							
199										00-FF							
19A										00-FF							
19B										00-FF							
19C										00-FF							
19D										00-FF							
19E										00-FF							
19F										00-FF							
1A0										00-FF							
1A1										00-FF							
1A2										00-FF							
1A3										00-FF							
1A4										00-FF							
1A5										00-FF							
1A6										00-FF							
1A7										00-FF							
1A8										00-FF							
1A9										00-FF							
1AA										00-FF							
1AB										00-FF							
1AC										00-FF							
1AD										00-FF							
1AE										00-FF							
1AF										00-FF							
1B0										00-FF							
1B1										00-FF							
1B2										00-FF							
1B3										00-FF							
1B4										00-FF							
1B5										00-FF							
1B6										00-FF							
1B7										00-FF							
1B8										00-FF							
1B9										00-FF							
1BA										00-FF							
1BB										00-FF							
1BC										00-FF							
1BD										00-FF							
1BE										00-FF							
1BF										00-FF							
MODEL									MODEL								
A3HE1EFV3J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)																		
ADDRESS (HEX)	DATA								MICON DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL SETTING DATA	REMARK	
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE			
1C0				SLV1 (HIGH)					00	00-FF							(2) Remove from Sheet EEPROM MAP06 (166H-171H)	
1C1				SLV1 (LOW)					00	00-FF								
1C2				SLV2 (HIGH)					00	00-FF								
1C3				SLV2 (LOW)					00	00-FF								
1C4				SLV3 (HIGH)					00	00-FF								
1C5				SLV3 (LOW)					00	00-FF								
1C6				SLV4 (HIGH)					00	00-FF								
1C7				SLV4 (LOW)					00	00-FF								
1C8				SLV5 (HIGH)					00	00-FF								
1C9				SLV5 (LOW)					00	00-FF								
1CA				SLV6 (HIGH)					00	00-FF								
1CB				SLV6 (LOW)					00	00-FF								
1CC				SLV7 (HIGH)					00	00-FF						(2) Add SLV7 for S- BOOSTER.		
1CD				SLV7 (LOW)					00	00-FF								
1CE																		
1CF																		
1D0																		
1D1																		
1D2																		
1D3																		
1D4																		
1D5																		
1D6																		
1D7																		
1D8																		
1D9																		
1DA																		
1DB																		
1DC																		
1DD																		
1DE																		
1DF																		
1E0																		
1E1																		
1E2																		
1E3																		
1E4																		
1E5																		
1E6																		
1E7																		
1E8																		
1E9																		
1EA																		
1EB																		
1EC																		
1ED																		
1EE																		
1EF																		
1F0																		
1F1																		
1F2																		
1F3																		
1F4																		
1F5																		
1F6																		
1F7																		
1F8																		
1F9																		
1FA																		
1FB																		
1FC																		
1FD																		
1FE																		
1FF																		
MODEL									MODEL									
A3HE1EFV3J																		
LETTER NO.									LETTER NO.									

MEMORY MAP

(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS (HEX)	DATA								MICON DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL SETTING DATA	REMARK
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE		
200									3F	00-7F							
201									3F	00-7F							
202									7F	00-FF							
203									7F	00-FF							
204									7F	00-FF							
205									32	00-7F							
206									1F	00-3F							
207									03	00-07							
208									64	00-7F							
209									3F	00-7F							
20A									7F	00-FF							
20B									3F	00-7F							
20C									2B	00-3F							
20D									5A	00-7F							
20E									3F	00-7F							
20F									26	00-3F							
210									03	00-07							
211									09	00-1F							
212									25	00-3F							
213									16	00-3F							
214									3C	00-3C							
215									1F	00-3E							
216									06	00-0E							
217									11	00-1E							
218									07	00-0F							
219									07	00-0F							
21A									07	00-0F							
21B									07	00-0F							
21C									07	00-0F							
21D																	
21E																	
21F																	
220																	
221																	
222																	
223																	
224																	
225																	
226																	
227																	
228																	
229																	
22A																	
22B																	
22C																	
22D																	
22E																	
22F																	
230									5F	00-7F							
231									04	00-07							
232									05	00-07							
233									05	00-07							
234									07	00-07							
235									05	00-07							
236									05	00-07							
237									06	00-07							
238									06	00-07							
239									07	00-07							
23A									06	00-07							
23B									06	00-07							
23C									06	00-07							
23D									29	00-3E							
23E									1F	00-3E							
23F									28	00-3E							
MODEL																	
A3HE1EFV3J																	
LETTER NO.																	
LETTER NO.																	

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
240					COLOUR-N443 (F32)				17	00-3E							
241					COLOUR-N358 (F33)				18	00-3E							
242					COLUR-ADJ (F34)				1F	00-3E							
243					SHARPNESS-AV (F35)				24	00-3E							
244					SHARPNESS-YUV (F36)				1F	00-3E							
245					SHARPNESS-PAL (F37)				1F	00-3E							
246					SHARPNESS-SECAM (F38)				1A	00-3E							
247					SHARPNESS-N443 (F39)				1F	00-3E							
248					SHARPNESS-N358 (F40)				1F	00-3E							
249					TINT-AV (F41)				3F	00-7E							
24A					TINT-ADJ (F42)				3F	00-7E							
24B					TINT-YUV-ADJ (F43)				3F	00-7E							
24C					R-R DRIVE (F44)				47	00-7E							
24D					B-R DRIVE (F45)				35	00-7E							
24E					R-B DRIVE (F46)				3C	00-7E							
24F					B-B DRIVE (F47)				4F	00-7E							
250								TRAP (F53)	02	00-03							
251								TRAP-PAL (F54)	02	00-03							
252								TRAP-SECAM (F55)	02	00-03							
253								TRAP-N443 (F56)	02	00-03							
254								TRAP-N358 (F57)	02	00-03							
255								GAMMA (F62)	00	00-03							
256					BS-D/C (F63)				0A	00-0F							
257					SL-TV (F66)				02	00-07							
258					SL-AV (F67)				04	00-07							
259					SL-YUV (F68)				04	00-07							
25A					VD2/VD1/AS/FBP-TV (F69)				06	00-0F							
25B					VD2/VD1/AS/FBP-AV (F70)				0E	00-0F							
25C					VD2/VD1/AS/FBP-YUV (F71)				0E	00-0F							
25D								VDL (F72)	00	00-03							
25E								UDL (F73)	00	00-03							
25F								AUTO-SCM-KIL-TV (F74)	01	00-03							
260								SECAM-BGP (F76)	00	00-03							
261					TXT-POS-H (F80)				1E	00-3F							
262					TXT-POS-V (F81)				22	00-3F							
263					OSD-POS (F82)				09	00-7F							
264								SUB-BASS (F85)	06	00-07							
265								SUB-TREBLE (F86)	00	00-07							
266								AGC-ADJ (F87)	00	00-04							
267					AGC-GAIN-ADJUST (F89)				10	00-1F							(1) Change default value 00 to 10.
268					FM-LEVEL-ADJUST (F90)				0F	00-1E							
269					IGR-LEVEL-ADJUST (F91)				10	00-1E							
26A					NICAM-BG-LEVEL-ADJUST (F92)				0D	00-1E							
26B					NICAM-I-LEVEL-ADJUST (F93)				12	00-1E							
26C					NICAM-DK-LEVEL-ADJUST (F94)				0E	00-1E							
26D					NICAM-LOWER-ERROR-LIMIT (F95)				23	00-FF							
26E					NICAM-UPPER-ERROR-LIMIT (F96)				46	00-FF							
26F					IGR-GAIN-ADJUST (F97)				06	00-0D							
270								FM-ID-SPEED (F98)	01	00-03							
271								AUTO-SCM-KIL-AV-YUV (F101)	01	00-03							
272								AFC1-GAIN-TV (F102)	00	00-03							
273								AFC1-GAIN-AV (F103)	03	00-03							
274								AFC1-GAIN-YUV (F104)	03	00-03							
275								CON-REDUCE (F105)	00	00-02							
276					STANDBY-WO-BRIGHT (F110)				FF	00-FF							
277					AC-FAIL-WO-BRIGHT (F111)				FF	00-FF							
278								FORCED-SCM-KIL-TV (F112)	02	00-03							
279								FORCED-SCM-KIL-AV-YUV (F113)	02	00-03							
27A					VIDEO-DEMUTE-DELAY (F115)				00	00-FF							(1) New Item F115.
27B					SOUND-DEMUTE-DELAY (F116)				00	00-FF							(1) New Item F116.
27C																	
27D																	
27E																	
27F																	
MODEL									MODEL								
A3HE1EFV3J																	
LETTER NO.									LETTER NO.								

MEMORY MAP

(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS (HEX)	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
280	BS OFF (F08)	RGB CLIP (F07)	C.CLIP- LVL (F06)	STrapQ- 574 (F05)	STrapQ-M (F04)	STrapQ- DK (F03)	STrapQ-I (F02)	STrapQ- BG (F01)	00	00-FF							
281	Ana-OSD (F100)	ABCL-G (F10)	ABCL (F09)	SHP-G- N3 (F17)	SHP-G- N4 (F16)	SHP-G- SCM (F15)	SHP-G- PAL (F14)	SHP-G (F13)	10	00-FF							
282	V-FREE (F60)	1W-AV (F59)	1W-TV (F58)	DT-N3 (F52)	DT-N4 (F51)	DT-S (F50)	DT-P (F49)	DT (F48)	44	00-FF							
283	PLL-CP (F83)	DL-Vout (F79)	DL-REV (F78)	N45 (F77)	SCM-YDL (F75)	OM DET (F65)	BS GAIN (F64)	AFC2 (F61)	80	00-FF							
284	AV2 (O11)	AV (O10)	Forced- Col (O08)	N358-TV (O07)	N443-TV (O06)	SECAM (O05)	VIF (O04)	HOTEL (O01)	DE	00-FF							
285	LED- CONT (O21)	R/C MENU (O20)	BIL (O17)	TEXT (O16)	A2 (O15)	NICAM (O14)	S-CTR (O13)	YUV (O12)	03	00-FF							
286					M (O09)	DK (O09)	I (O09)	B/G (O09)	0F	01-0F							
287			Arabic (O18)	Malay (O18)	Russian (O18)	France (O18)	Chinese (O18)	English (O18)	3F	01-3F							
288						SEARCH SPEED (O19)			03	01-05							
289	HOTEL CHANNEL POSITION (O02)								FF	00-63, FF							
28A	HOTEL VOLUME (O03)								FF	00-3C, FF							
28B						NICAM- AUTO- MUTE (F99)	AGC-SW- OFF (F88)	SMALL- SURR (F84)	02	00-07							(1) Change default value 00 to 02.
28C			Pow- Storage (F127)	R-Y Adj. (F114)	C-ANGLE (F109)	TAKE- OFF-YUV (F108)	TAKE- OFF-AV (F107)	TAKE- OFF-TV (F106)	09	00-3F							(1) Added R-Y Adj. (2) Add Pow- Storage
28D							Sharp- logo (O23)	S- Booster (O22)	00	00-03							(2) Add Sharp- logo and S- Booster.
28E	MER (F117)								46	00-FF							(2) Add MER
28F	MEL1 (F118)								96	00-FF							(2) Add MEL1
290	MEL2 (F119)								9C	00-FF							(2) Add MEL2
291	MEL3 (F120)								A3	00-FF							(2) Add MEL3
292	MEL4 (F121)								A5	00-FF							(2) Add MEL4
293	MEL5 (F122)								AA	00-FF							(2) Add MEL5
294	MEL6 (F123)								B4	00-FF							(2) Add MEL6
295				S-Start Point (F124)					15	00-3C							(2) Add S- Start Point
296				S-Stop Point (F125)					3C	00-3C							(2) Add S- Stop Point
297				S-Step (F126)					07	00-3C							(2) Add S- Step
298				S-B-BASS (F128)					2D	00-3C							(2) Add S-B- BASS
299				S-B-TREB (F129)					2D	00-3C							(2) Add S-B- TREB
29A				S-BASS (F130)					3C	00-3C							(2) Add S- BASS
29B				S-TREB (F131)					3C	00-3C							(2) Add S- TREB
29C																	
29D																	
29E																	
29F																	
2A0																	
2A1																	
2A2																	
2A3																	
2A4																	
2A5																	
2A6																	
2A7																	
2A8																	
2A9																	
2AA																	
2AB																	
2AC																	
2AD																	
2AE																	
2AF																	
2B0																	
2B1																	
2B2																	
2B3																	
2B4																	
2B5																	
2B6																	
2B7																	
2B8																	
2B9																	
2BA																	
2BB																	
2BC																	
2BD																	
2BE																	
2BF																	
MODEL																	
A3HE1EFV3J																	
LETTER NO.																	
LETTER NO.																	

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS (HEX)	DATA							MICON DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL SETTING DATA	REMARK
	D7	D6	D5	D4	D3	D2	D1	D0			CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE		
2C0																
2C1																
2C2																
2C3																
2C4																
2C5																
2C6																
2C7																
2C8																
2C9																
2CA																
2CB																
2CC																
2CD																
2CE																
2CF																
2D0																
2D1																
2D2																
2D3																
2D4																
2D5																
2D6																
2D7																
2D8																
2D9																
2DA																
2DB																
2DC																
2DD																
2DE																
2DF																
2E0																
2E1																
2E2																
2E3																
2E4																
2E5																
2E6																
2E7																
2E8																
2E9																
2EA																
2EB																
2EC																
2ED																
2EE																
2EF																
2F0																
2F1																
2F2																
2F3																
2F4																
2F5																
2F6																
2F7																
2F8																
2F9																
2FA																
2FB																
2FC																
2FD																
2FE																
2FF																
MODEL									MODEL							
A3HE1EFV3J																
LETTER NO.									LETTER NO.							

*1 0 : individually selectable rating system 1 : threshold selectable rating system
*2 0 : CATEGORY bit mask with (01,05) 1st character 1 : CATEGORY bit mask with (01,05) 2nd character

MEMORY MAP

(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS (HEX)	DATA								MICON DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL SETTING DATA	REMARK
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE		
300	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 0
301	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 1
302	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 2
303	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 3
304	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 4
305	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 5
306	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 6
307	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 7
308	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 8
309	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 9
30A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 10
30B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 11
30C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 12
30D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 13
30E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 14
30F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 15
310	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 16
311	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 17
312	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 18
313	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 19
314	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 20
315	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 21
316	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 22
317	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 23
318	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 24
319	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 25
31A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 26
31B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 27
31C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 28
31D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 29
31E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 30
31F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 31
320	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 32
321	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 33
322	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 34
323	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 35
324	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 36
325	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 37
326	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 38
327	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 39
328	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 40
329	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 41
32A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 42
32B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 43
32C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 44
32D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 45
32E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 46
32F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 47
330	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 48
331	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 49
332	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 50
333	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 51
334	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 52
335	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 53
336	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 54
337	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 55
338	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 56
339	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 57
33A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 58
33B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 59
33C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 60
33D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 61
33E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 62
33F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 63
MODEL								MODEL									
A3HE1EFV3J																	
LETTER NO.								LETTER NO.									

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS (HEX)	DATA								MICON DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL SETTING DATA	REMARK
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE		
340	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 64
341	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 65
342	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 66
343	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 67
344	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 68
345	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 69
346	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 70
347	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 71
348	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 72
349	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 73
34A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 74
34B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 75
34C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 76
34D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 77
34E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 78
34F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 79
350	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 80
351	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 81
352	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 82
353	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 83
354	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 84
355	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 85
356	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 86
357	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 87
358	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 88
359	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 89
35A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 90
35B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 91
35C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 92
35D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 93
35E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 94
35F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 95
360	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 96
361	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 97
362	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 98
363	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 99
364																	
365																	
366																	
367																	
368																	
369																	
36A																	
36B																	
36C																	
36D																	
36E																	
36F																	
370																	
371																	
372																	
373																	
374																	
375																	
376																	
377																	
378																	
379																	
37A																	
37B																	
37C																	
37D																	
37E																	
37F																	
MODEL										MODEL							
A3HE1EFV3J																	
LETTER NO.										LETTER NO.							

MEMORY MAP (Continued)

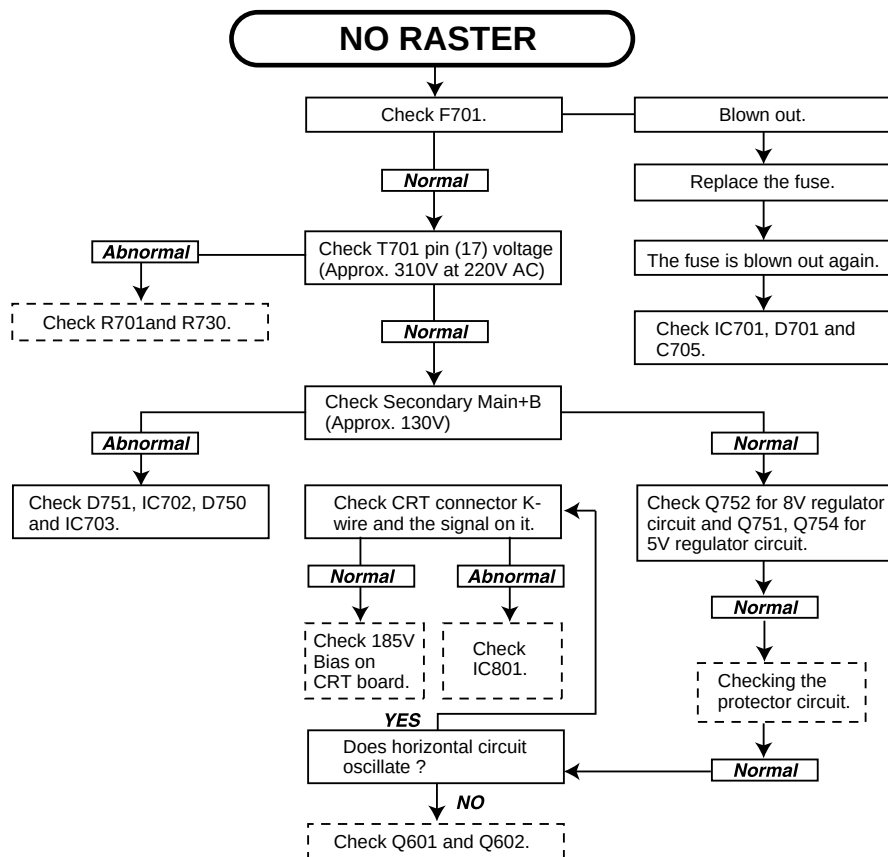
SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS (HEX)	DATA								MICON DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL SETTING DATA	REMARK
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE		
380																	
381																	
382																	
383																	
384																	
385																	
386																	
387																	
388																	
389																	
38A																	
38B																	
38C																	
38D																	
38E																	
38F																	
390																	
391																	
392																	
393																	
394																	
395																	
396																	
397																	
398																	
399																	
39A																	
39B																	
39C																	
39D																	
39E																	
39F																	
3A0																	
3A1																	
3A2																	
3A3																	
3A4																	
3A5																	
3A6																	
3A7																	
3A8																	
3A9																	
3AA																	
3AB																	
3AC																	
3AD																	
3AE																	
3AF																	
3B0																	
3B1																	
3B2																	
3B3																	
3B4																	
3B5																	
3B6																	
3B7																	
3B8																	
3B9																	
3BA																	
3BB																	
3BC																	
3BD																	
3BE																	
3BF																	
MODEL																	
A3HE1EFV3J																	
LETTER NO.																	
LETTER NO.																	

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)																	
ADDRESS (HEX)	DATA								MICON DEFAULT	EEPROM RANGE	EEPROM WRITE(CPU)	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
	D7	D6	D5	D4	D3	D2	D1	D0				CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
3C0																	
3C1																	
3C2																	
3C3																	
3C4																	
3C5																	
3C6																	
3C7																	
3C8																	
3C9																	
3CA																	
3CB																	
3CC																	
3CD																	
3CE																	
3CF																	
3D0																	
3D1																	
3D2																	
3D3																	
3D4																	
3D5																	
3D6																	
3D7																	
3D8																	
3D9																	
3DA																	
3DB																	
3DC																	
3DD																	
3DE																	
3DF																	
3E0																	
3E1																	
3E2																	
3E3																	
3E4																	
3E5																	
3E6																	
3E7																	
3E8																	
3E9																	
3EA																	
3EB																	
3EC																	
3ED																	
3EE																	
3EF																	
3F0																	
3F1																	
3F2																	
3F3																	
3F4																	
3F5																	
3F6																	
3F7																	
3F8																	
3F9																	
3FA																	
3FB																	
3FC																	
3FD																	
3FE																	
3FF																	
MODEL										MODEL							
A3HE1EFV3J																	
LETTER NO.										LETTER NO.							

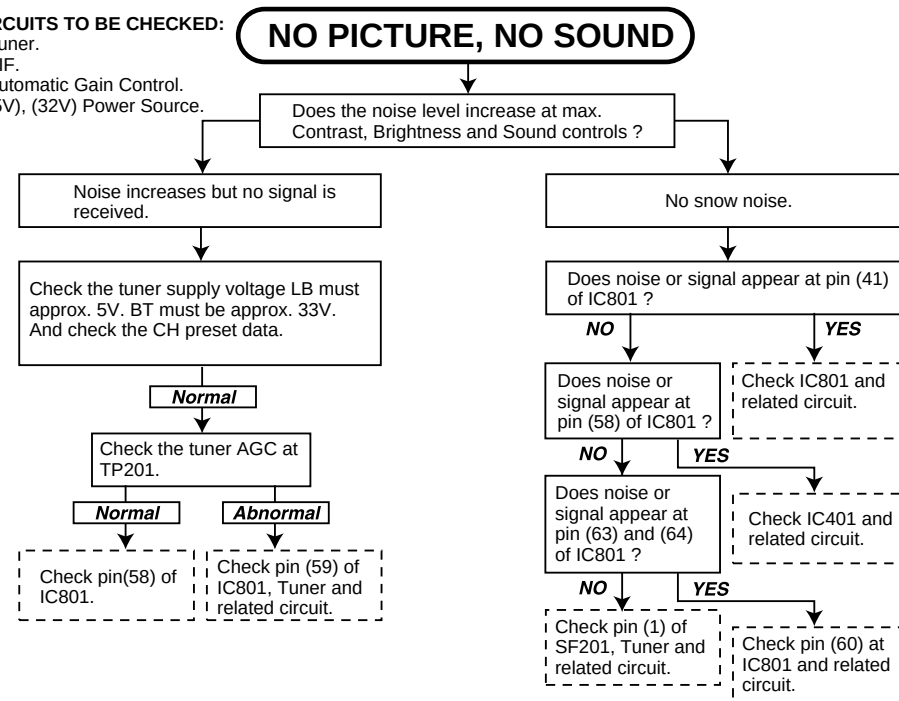
TROUBLE SHOOTING FLOWCHART



TROUBLE SHOOTING FLOWCHART (Continued)

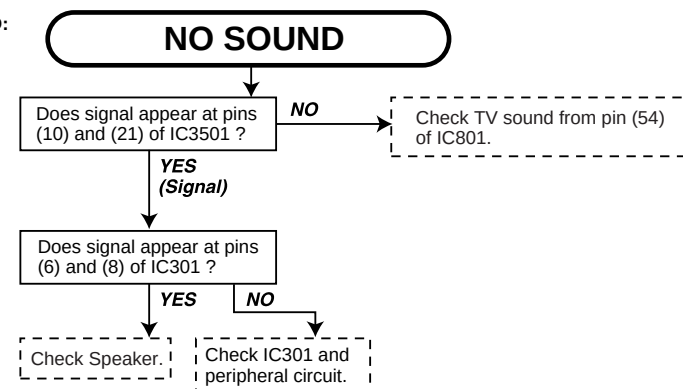
CIRCUITS TO BE CHECKED:

- Tuner.
- PIF.
- Automatic Gain Control.
- (5V), (32V) Power Source.



CIRCUITS TO BE CHECKED:

- Sound Detector Circuit.
- Sound Switch and Att. Control.
- Audio Output Circuit.



TROUBLE SHOOTING FLOWCHART (Continued)

NEITHER VERTICAL NOR HORIZONTAL SYNCHRONIZATION

CIRCUIT TO BE CHECKED:
• Sync. Separator Circuit.

Check pins(5), (6), (10) and (11) of IC801.

DEFECTIVE VERTICAL AMP. AND VERTICAL LINEARITY

Re-adjust vertical size.
(Bus Data)

Vertical linearity and size are abnormal.

Check R503, R506, R513, R520 and C515.

NO VERTICAL SCAN

Check IC501 bias.

Normal

Check C511.

Abnormal

Check IC501.

TROUBLE SHOOTING FLOWCHART (Continued)

NO SPECIFIC COLOUR

YES Is some colour produced in B/W broadcast reception ?

Check IC801.

NO Is the white balance properly adjusted ?

YES

NO Re-adjust the white balance.

The picture colour is cyan.

Check Q855 and its adjacent circuits.

The picture colour is magenta.

Check Q854 and its adjacent circuits.

The picture colour is yellow.

Check Q853 and its adjacent circuits.

NO SPECIFICATION COLOUR
PAL / SECAM / NTSC
(NO COLOUR SYNCHRONIZATION)

(PAL / SECAM)

Check IC801 and bias control circuit.

(NTSC)

Normal

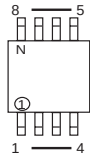
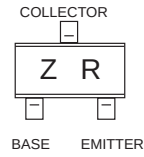
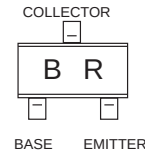
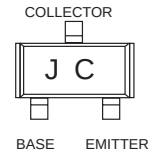
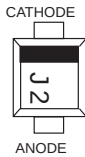
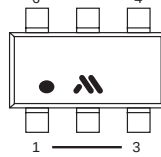
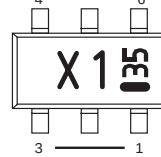
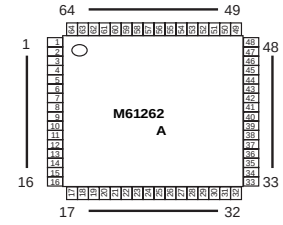
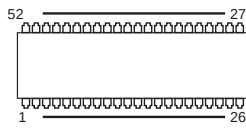
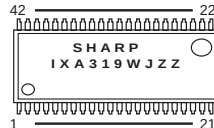
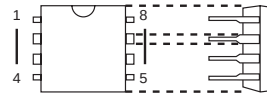
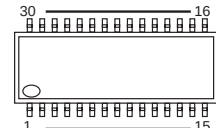
Check X801.(4.43MHz)

Normal

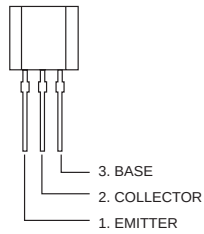
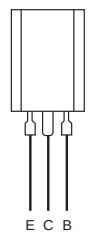
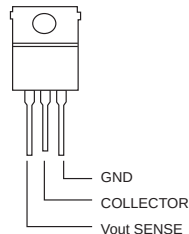
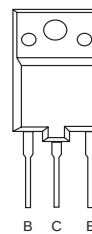
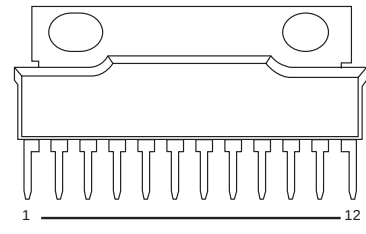
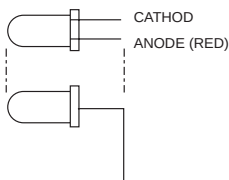
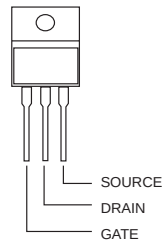
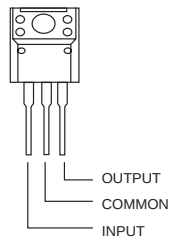
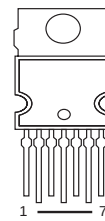
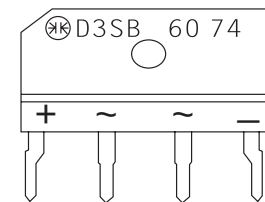
Check Q202 and peripheral circuit.

SOLID STATE DEVICE BASE DIAGRAM

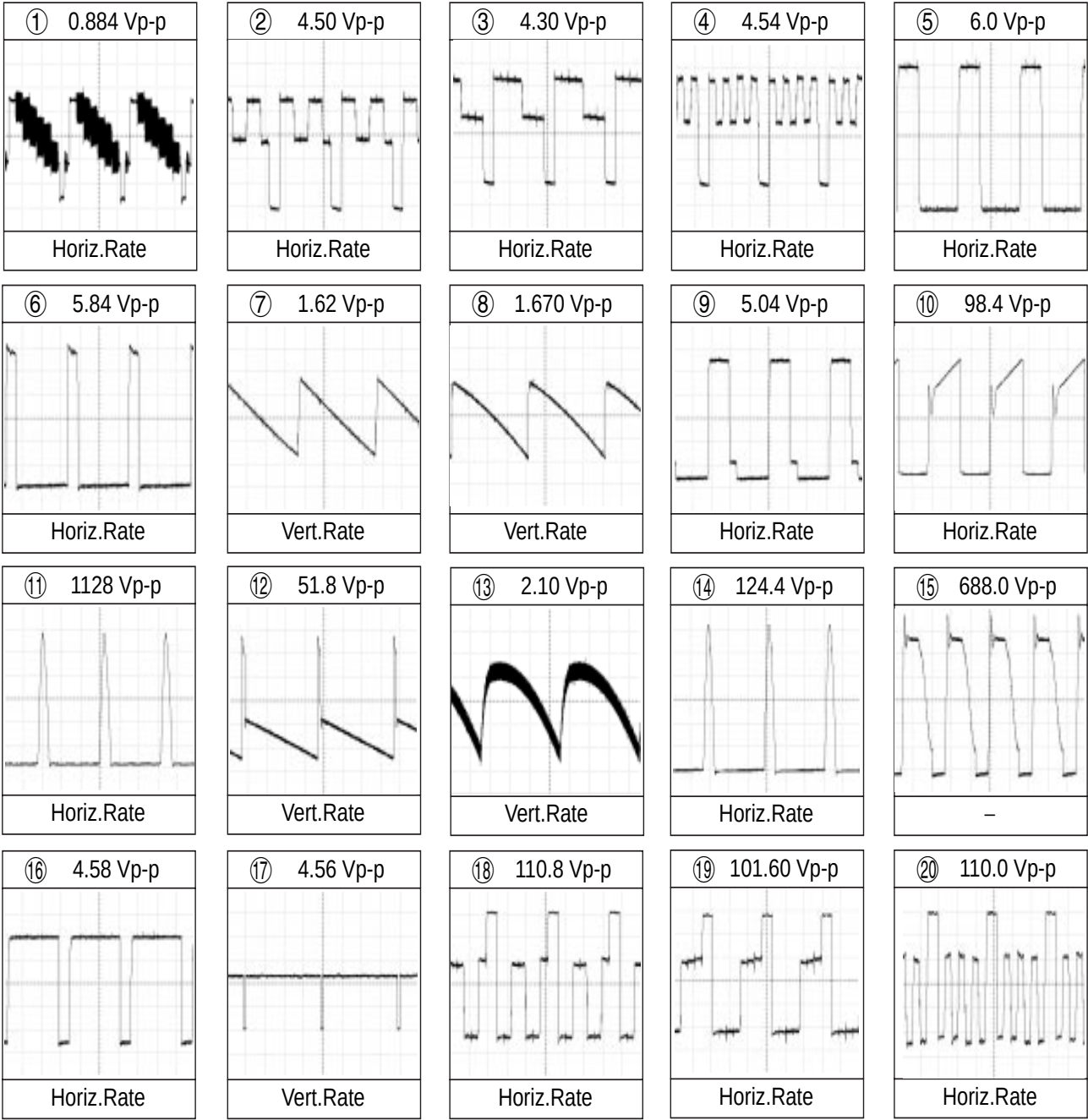
TOP VIEW

**M24C08W****FX0008GE****D601A****B709A****2SC2735****EX1393CE****EX0867CE****1SS356****M1501XN****IMX1C/C****M61262FP****SAA5264****IXA319WJ****TEA1507****NJW1142**

SIDE VIEW

**2PC1815Y
2PC1815G****2SC2236Y****SE130N****2SD2539****AN7522****PX0013****S7KM16A1****KA7809A****STV9302A****DX0476CE**

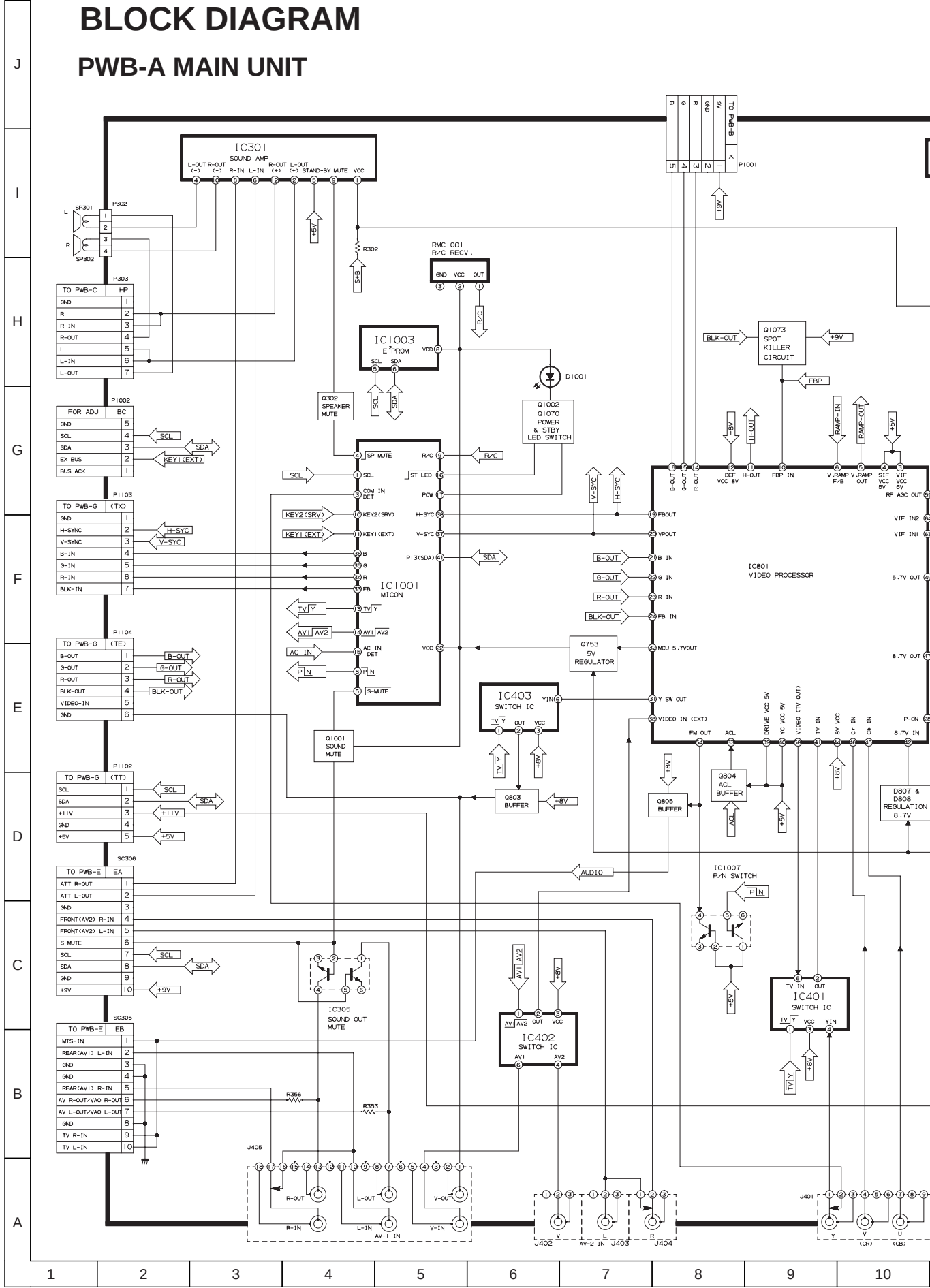
WAVEFORMS

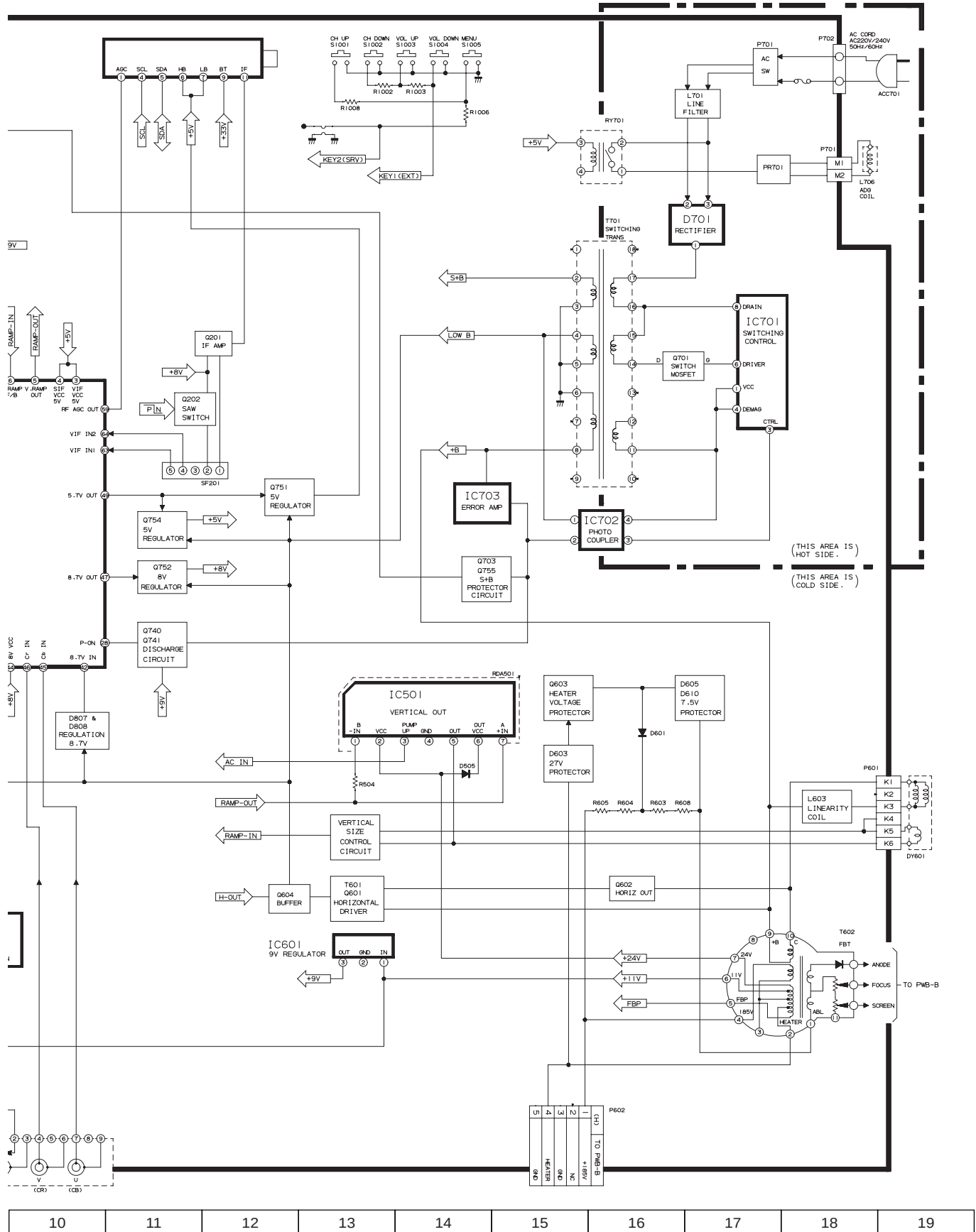




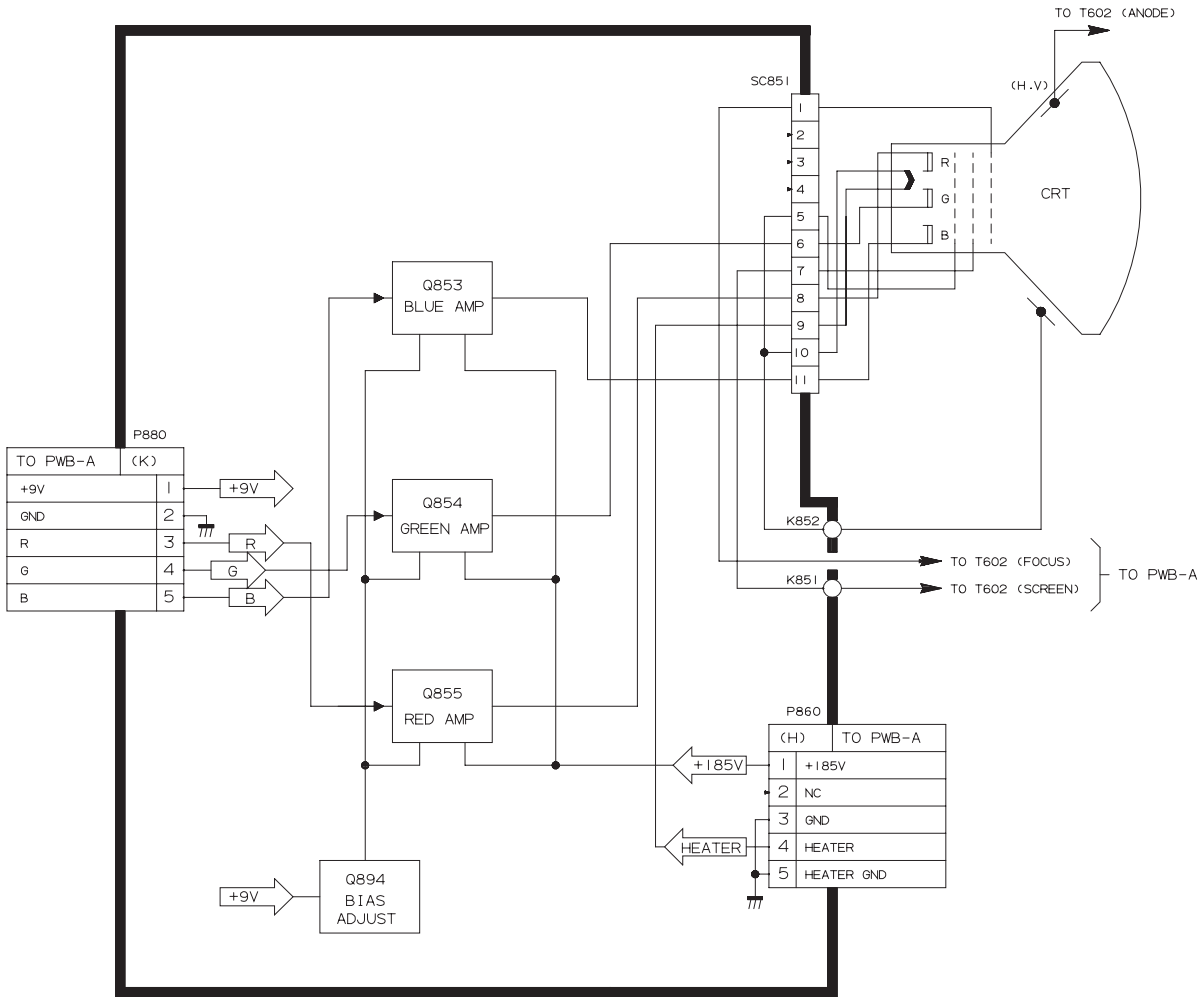
BLOCK DIAGRAM

PWB-A MAIN UNIT

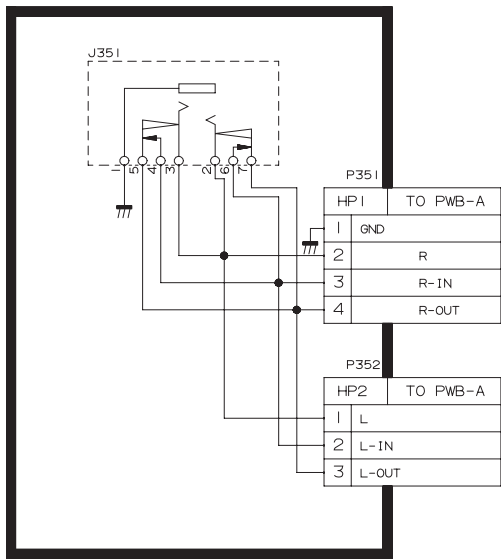




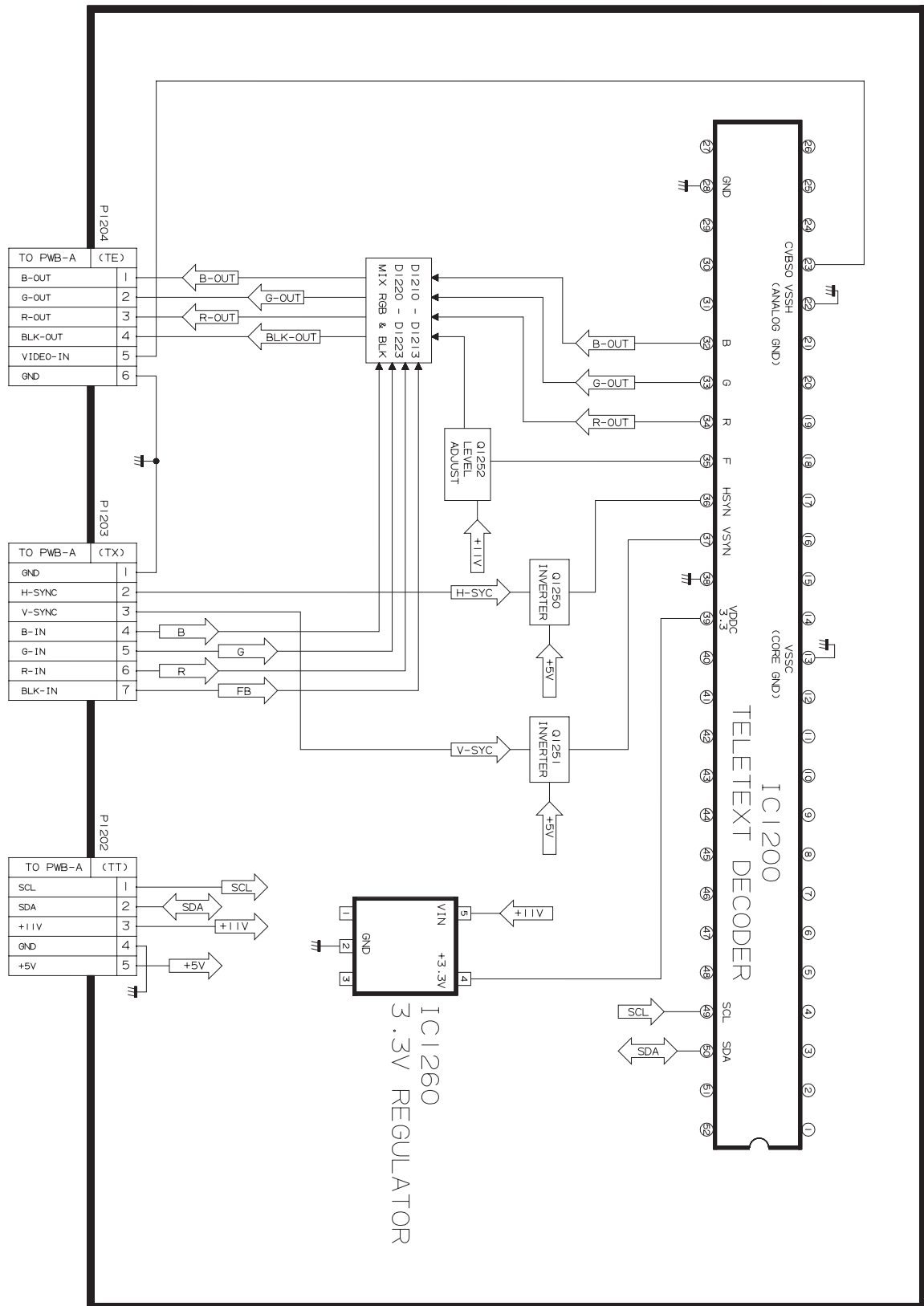
PWB-B CRT UNIT



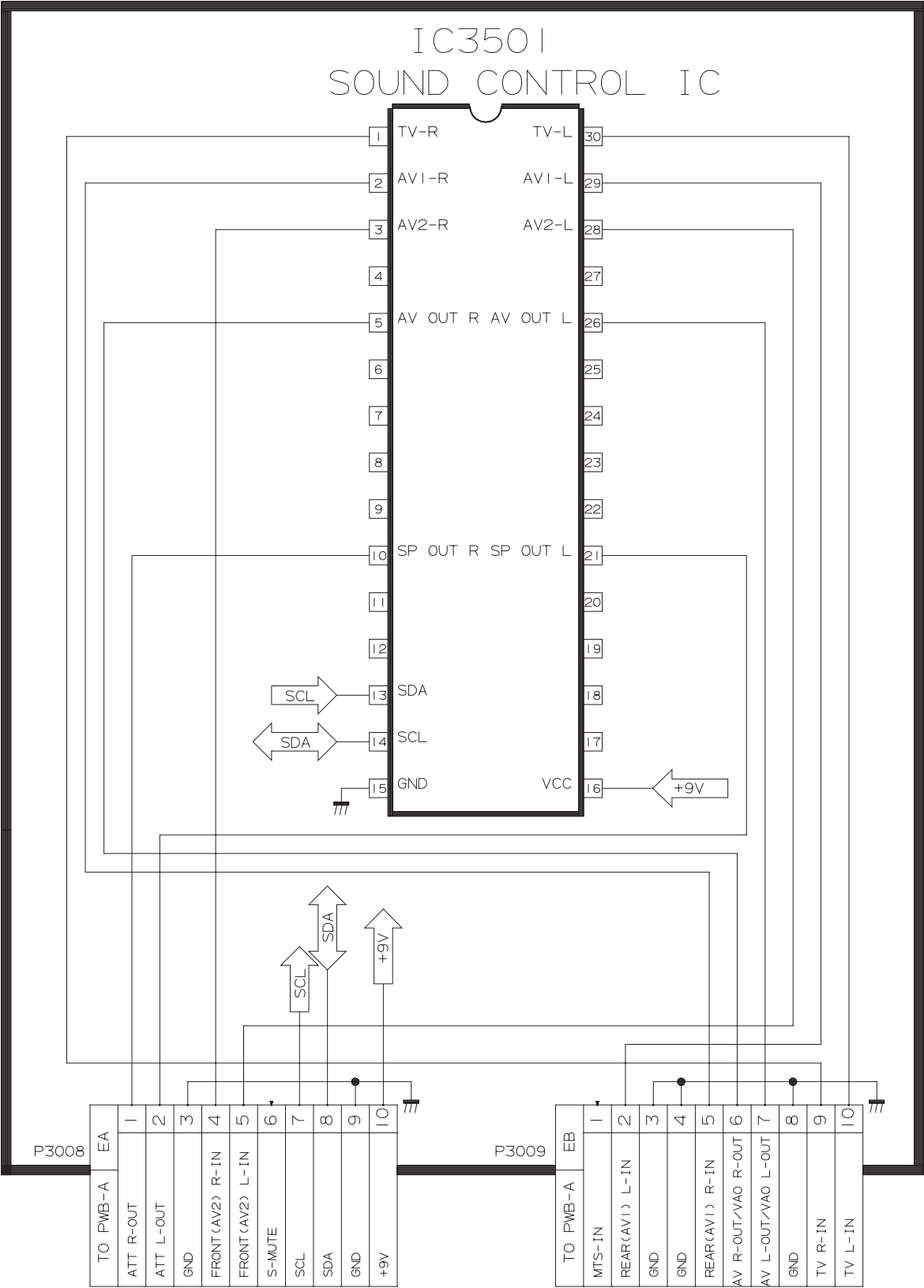
PWB-C HEADPHONE UNIT



PWB-D TELETEXT UNIT



PWB-E S-CONTROL UNIT



DESCRIPTION OF SCHEMATIC DIAGRAM

SAFETY NOTES:

1. DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.
2. SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.

IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH "⚠" () ARE IMPOTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

SERVICE PRECAUTION:

THE AREA ENCLOSED BY THIS LINE (— - —) IS DIRECTLY CONNECTED WITH AC MAINS VOLTAGE.
WHEN SERVICING THE AREA, CONNECT AN ISOLATING TRANSFORMER BETWEEN TV RECEIVER AND AC LINE TO ELIMINATE HAZARD OF ELECTRIC SHOCK.

NOTES:

1. The unit of resistance "ohm" is omitted.
(K = 1000 ohms, M = Mega ohm).
2. All resistors are 1/16 watt, unless otherwise noted.
3. All capacitors are μF , unless otherwise noted. (P = $\mu\mu F$).

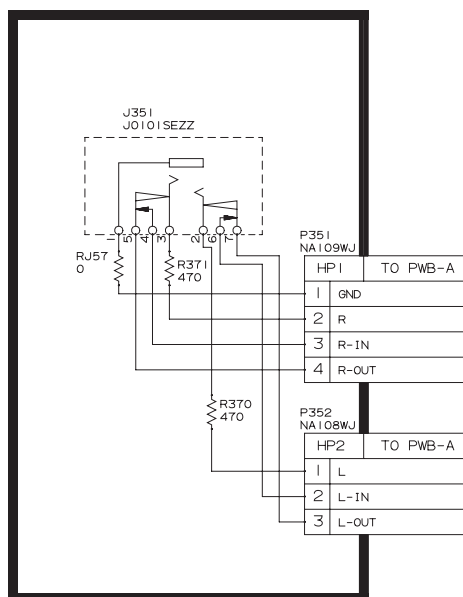
VOLTAGE MEASUREMENT CONDITIONS:

1. Voltages in parenthesis measured with no signal.
2. Voltages without parenthesis measured with 3mV B & W or Colour signal.
3. All the voltages in each point are measured with VTVM.

WAVEFORM MEASUREMENT CONDITIONS:

1. The colour bar generator signal of 1.0V peak applied at pin (41) of IC801.
2. Approximately 4V AGC bias .

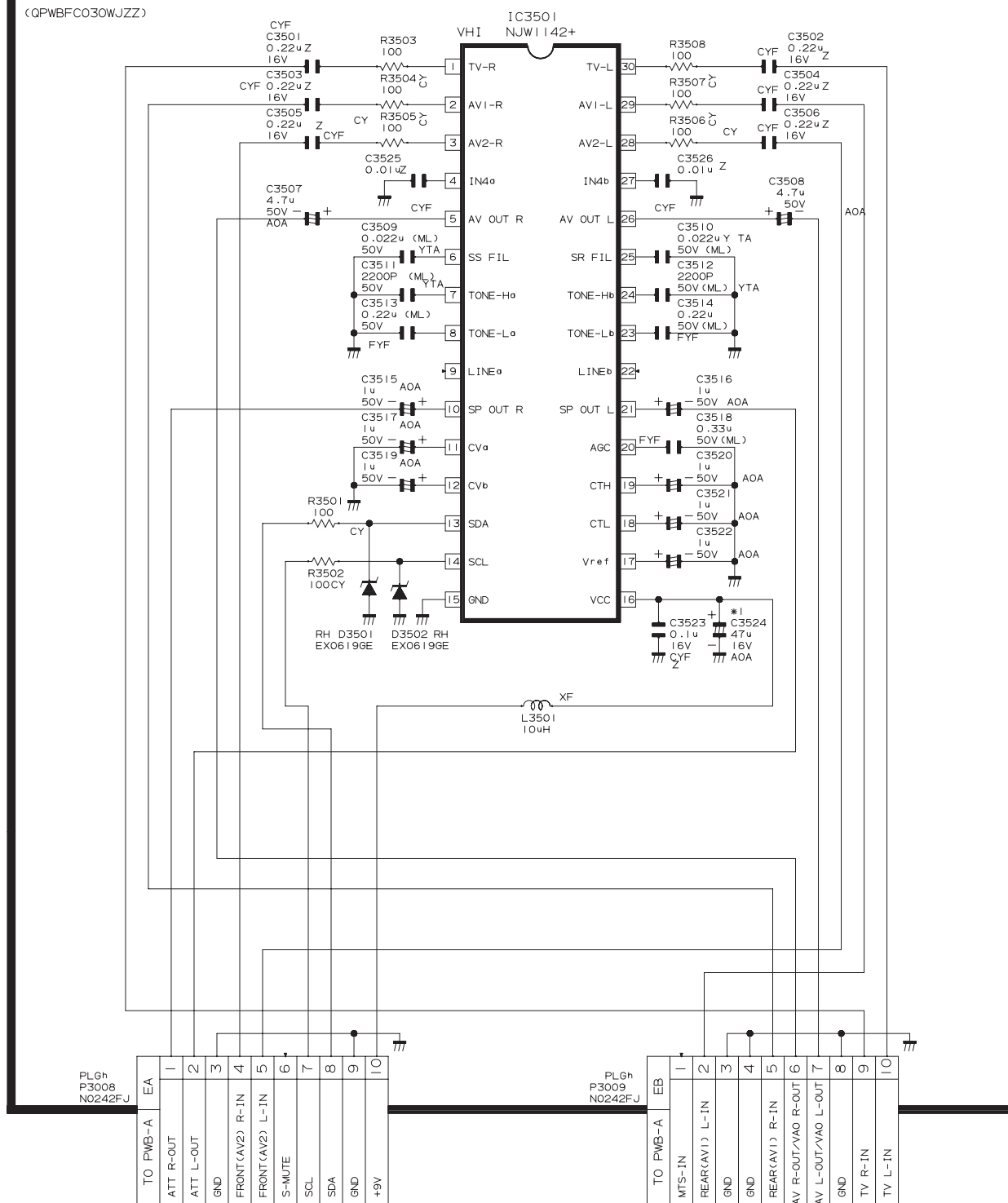




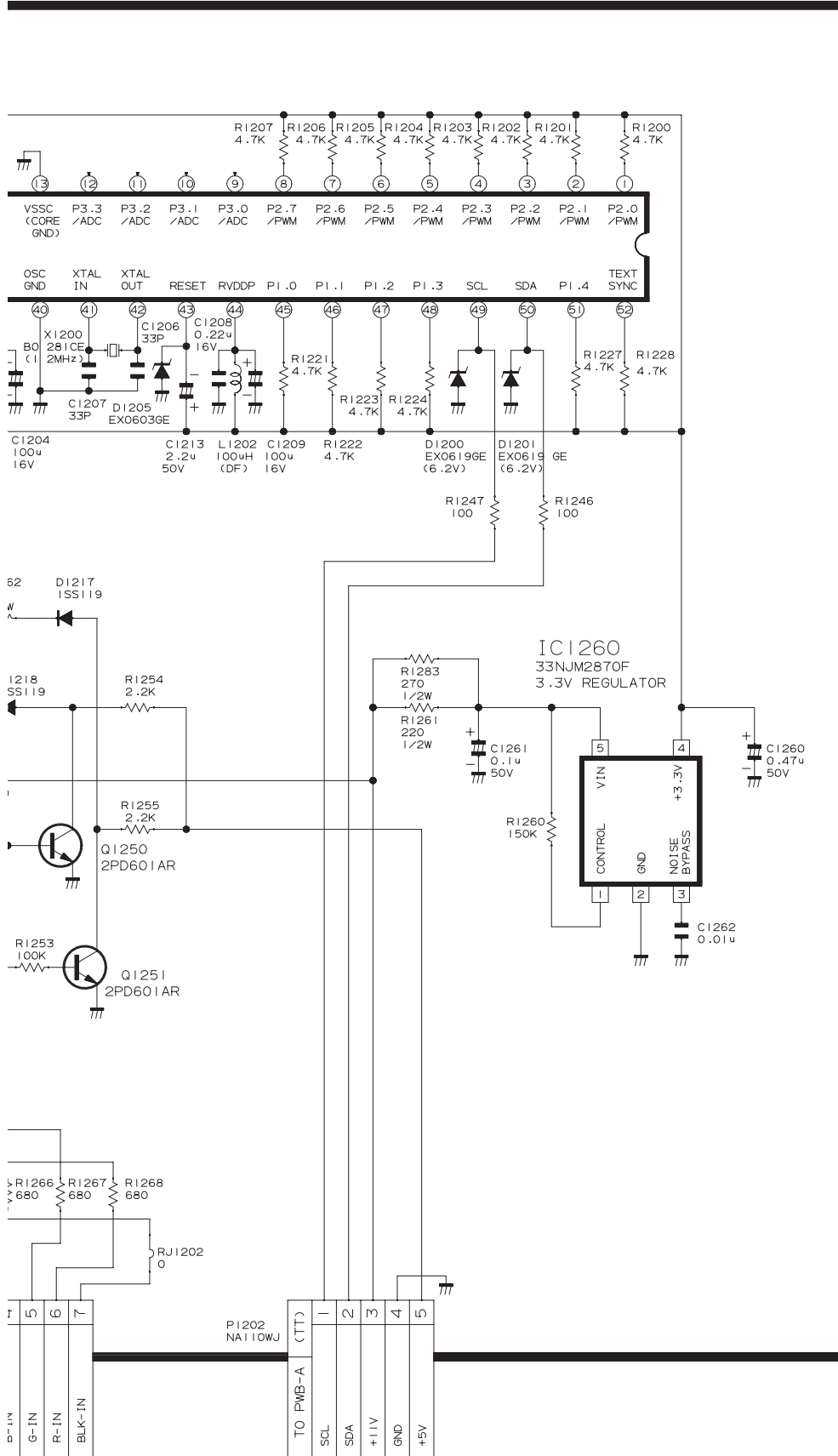
S-CONTROL UNIT

PWB-E

(QPWBFC030WJZZ)

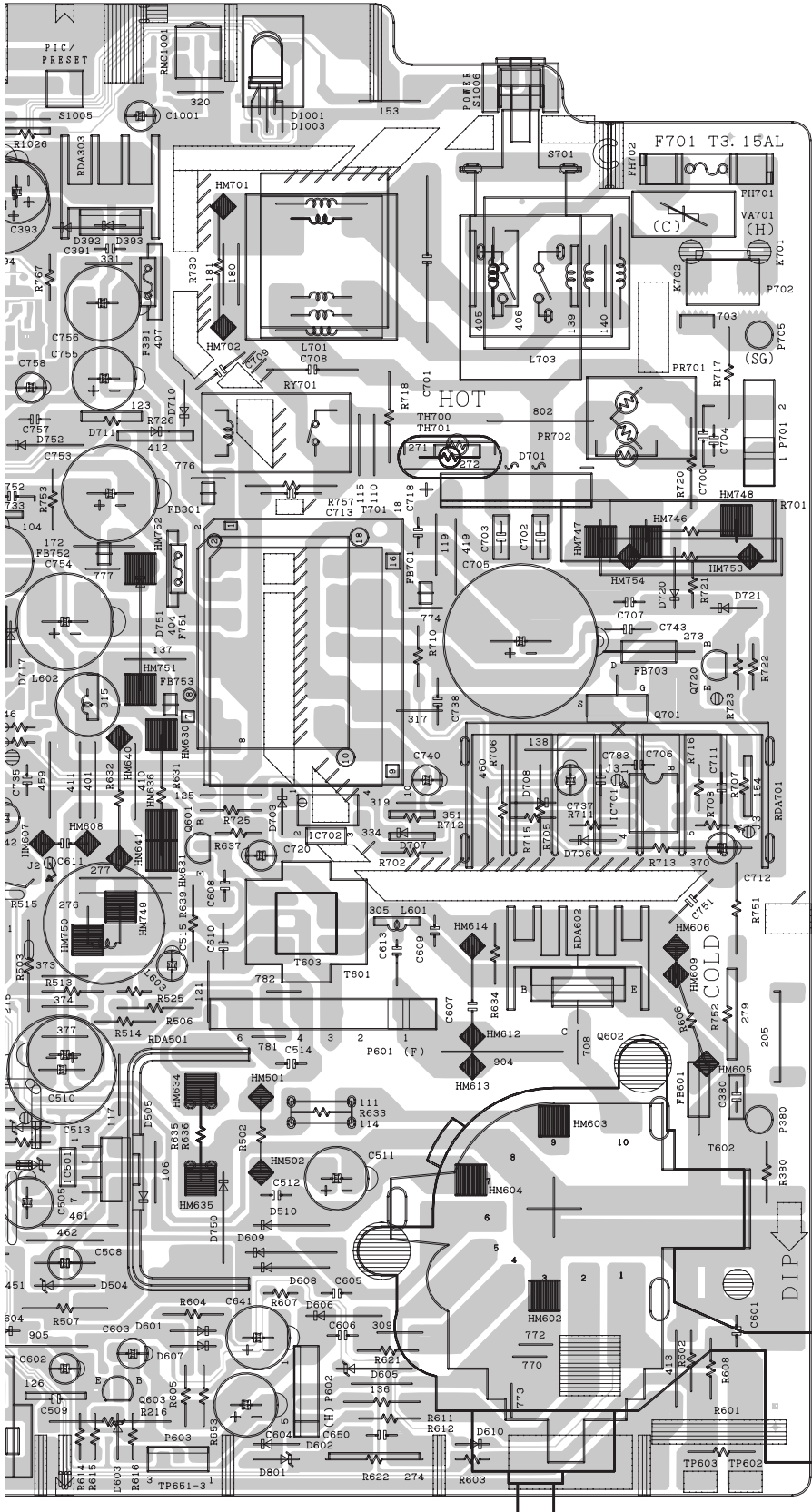






10	11	12	13	14	15	16	17	18	19
----	----	----	----	----	----	----	----	----	----

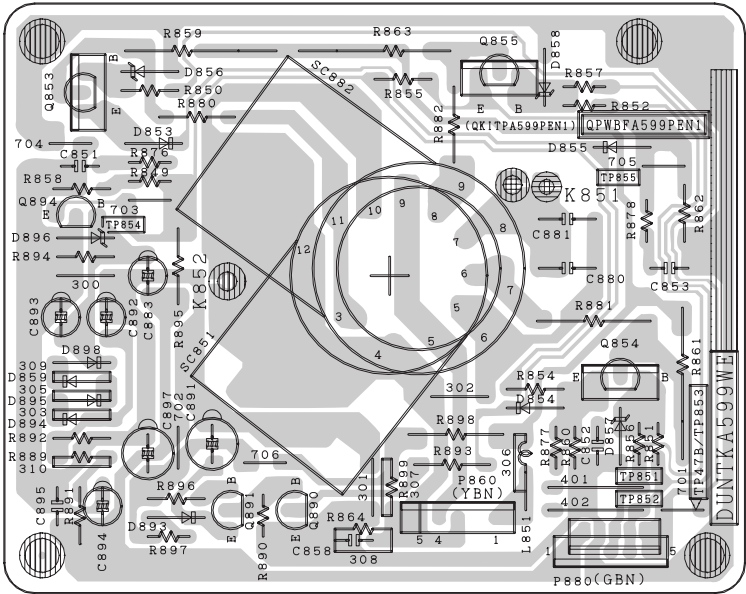




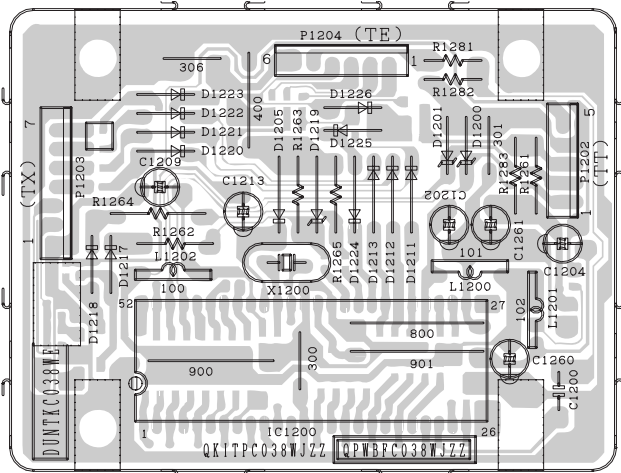
10	11	12	13	14	15	16	17	18	19
----	----	----	----	----	----	----	----	----	----



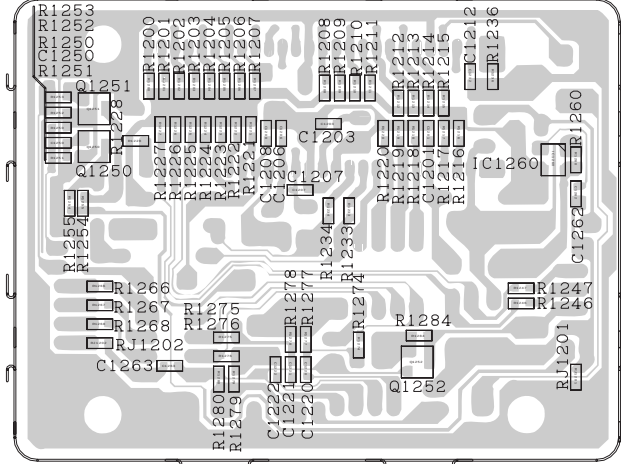
PWB-B: CRT UNIT (Component Side)



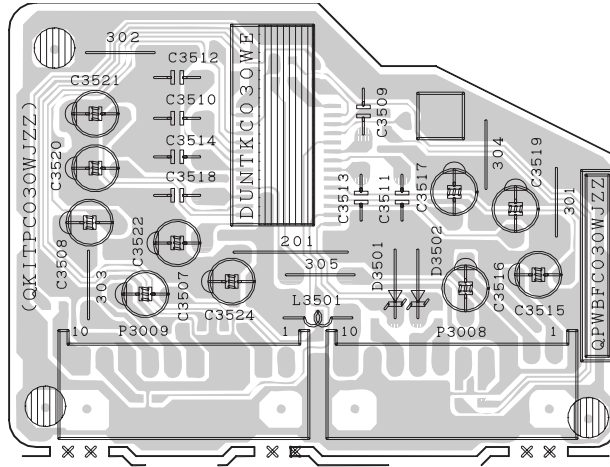
PWB-D: TELETXT UNIT (Component Side)



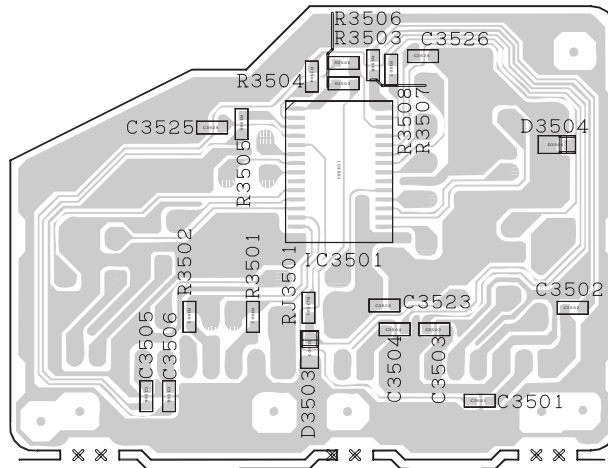
PWB-D: TELETXT UNIT (Wiring Side)



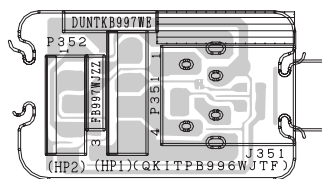
PWB-E: S-CONTROL UNIT (Component Side)



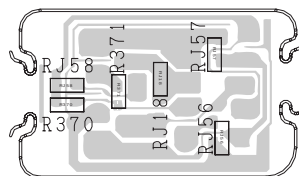
PWB-E: S-CONTROL UNIT (Wiring Side)



PWB-C: HEADPHONE UNIT (Component Side)



PWB-C: HEADPHONE UNIT (Wiring Side)



REPLACEMENT PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "△" in the Replacement Parts Lists.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION

MARK ★ : SPARE PARTS-DELIVERY SECTION.

▲ MARK: X-RAY RELATED PARTS

Ref. No.	Part No.	★	Description	Code
PICTURE TUBE				
△	VB51QDX992X1E	R	Picture Tube	CG
△	L706	RCiLG0069PEZZ	R Degaussing Coil	AR
		QEARCA012WJZZ	R Grounding Strap	AG
		PMAGF3046CEZZ	R Magnet	AF
		MSPRC0005PEFW	R Spring	AB

PRINTED WIRING BOARD ASSEMBLIES

(NOT REPLACEMENT ITEM)

PWB-A DUNTKB996WEA1	– Main Unit	—
PWB-B DUNTKA599WEB8	– CRT Unit	—
PWB-C DUNTKB997WEA1	– Headphone Unit	—
PWB-D DUNTKC038WEA0	– Teletext Unit	—
PWB-E DUNTKC030WEA1	– S-Control Unit	—

Ref. No.	Part No.	★	Description	Code
DUNTKB996WEA1				
PWB-A MAIN UNIT				
TUNER				
NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT INDEPENDENTLY.				
△ TU201	VTUVT1T5ED203	R	VHF Tuner	AX
INTEGRATED CIRCUITS				
IC301	VHiAN7522++-1	R	AN7522	AL
IC305	VSIMX1C/C//-1Y	R	IMX1C	AC
IC401	VHiMM1501XN-1Y	R	MM1501XNRE	AE
IC402	VHiMM1501XN-1Y	R	MM1501XNRE	AE
IC403	VHiMM1501XN-1Y	R	MM1501XNRE	AE
△ IC501	VHiSTV9302A-1	R	I.C.	AH
IC601	VHiKA7809AP-1	R	KIA7809API	AE
△ IC701	VHITEA1507/-1	R	TEA1507P/N1	AL
△ IC702	RH-FX0008GEZZ	R	PC123FY8	AE
△ IC703	VHiSE130N//-1	R	SE130N	AF
IC801	VHiM61262AF1EQ	R	I.C.	AZ
IC1001	RH-iXA319WJN4	R	I.C.	AT
IC1003	VHiM24C08W6-1Y	R	M24C08-WMN6T	AH
IC1007	VSIMX1C/C//-1Y	R	IMX1C	AC
TRANSISTORS				
Q201	VS2SC2735//1EY	R	2SC2735	AC
Q202	VS2PD601AR/-1Y	R	2PD601AR	AB
Q302	VS2PD601AR/-1Y	R	2PD601AR	AB
Q601	VS2SC2482//-1+	R	2SC2482	AD
Q602	VS2SD2539//1E	R	2SD2539	AP
Q603	VS2PC1815G+-1+	R	2PC1815G	AC
Q604	VS2PD601AR/-1Y	R	2PD601AR	AB
△ Q701	VHiMFS7KM16A1	R	I.C.	AM
Q703	VS2PC1815Y+-1+	R	2PC1815Y	AC
Q740	VS2PD601AR/-1Y	R	2PD601AR	AB
Q741	VS2PD601AR/-1Y	R	2PD601AR	AB
Q751	VS2SC2236Y/-1+	R	2SC2236Y	AD
Q752	VS2SC2236Y/-1+	R	2SC2236Y	AD
Q753	VS2PC1815G+-1+	R	2PC1815G	AC
Q754	VS2SC2236Y/-1+	R	2SC2236Y	AD
Q755	VS2PD601AR/-1Y	R	2PD601AR	AB
Q803	VS2PD601AR/-1Y	R	2PD601AR	AB
Q804	VS2PB709AR/-1Y	R	2PB709AR	AB
Q805	VS2PD601AR/-1Y	R	2PD601AR	AB
Q1001	VS2PD601AR/-1Y	R	2PD601AR	AB
Q1002	VS2PD601AR/-1Y	R	2PD601AR	AB
Q1070	VS2PD601AR/-1Y	R	2PD601AR	AB
Q1073	VS2PD601AR/-1Y	R	2PD601AR	AB
DIODES				
D201	RH-EX0676GEZZY	R	Zener Diode, 33V	AA
D202	VHD1SS356//-1Y	R	1SS356	AC
D203	VHD1SS119//-1Y	R	1SS119	AA
D204	VHD1SS119//-1Y	R	1SS119	AA
D393	RH-DX0247CEZZ	R	DX0247CE	AE
D502	RH-EX0652GEZZY	R	Zener Diode, 18V	AB
D503	RH-EX0612GEZZY	R	Zener Diode, 5.1V	AB
D504	RH-EX0654CEZZY	R	Zener Diode,	AD
D505	RH-DX0441CEZZY	R	DX0441CE	AC
D510	RH-DX0131CEZZY	R	DX0131CE	AC
D601	VHD1SS119//-1Y	R	1SS119	AA
▲ D602	VHD1SS244//-1Y	R	1SS244	AB
▲ D603	RH-EX0662GEZZY	R	Zener Diode, 27V	AB
D604	VHD1SS119//-1Y	R	1SS119	AA
D605	RH-EX0621GEZZY	R	Zener Diode, 6.8V	AB
△ D606	RH-DX0131CEZZY	R	DX0131CE	AC
D607	VHD1SS119//-1Y	R	1SS119	AA
D608	RH-DX0131CEZZY	R	DX0131CE	AC
D610	VHD1SS119//-1Y	R	1SS119	AA
△ D701	RH-DX0476CEZZ	R	DX0476CE	AG
D703	VHD1SS119//-1Y	R	1SS119	AA
D708	VHD1SS119//-1Y	R	1SS119	AA
D710	VHD1SS119//-1Y	R	1SS119	AA
D711	VHD1SS119//-1Y	R	1SS119	AA
D717	RH-EX0650GEZZY	R	Zener Diode, 16V	AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
D750	RH-EX0647CEZZY	R	Zener Diode, 150V	AH	C391	VCKYPA1HB102K+	R	1000p 50V Ceramic	AA
D751	RH-DX0229CEZZ	R	DX0229CE	AF	C392	VCQYTA1HM103J+	R	0.01 50V Mylar	AB
D752	RH-DX0302CEZZY	R	DX0302CE	AC	C393	VCEA0A1EW108M	R	1000 25V Electrolytic	AD
D801	RH-EX0613GEZZY	R	Zener Diode, 5.1V	AB	C401	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
D806	VHD1SS119//1Y	R	1SS119	AA	C403	VCKYCY1EF104ZY	R	0.1 25V Ceramic	AA
D807	RH-EX0625GEZZY	R	Zener Diode, 8V	AB	C404	VCEA9M1CW106M+R	10	16V Electrolytic	AB
D808	VHD1SS119//1Y	R	1SS119	AA	C434	VCEA0A1CW106M+R	10	16V Electrolytic	AB
D810	RH-EX0867CEZZY	R	Zener Diode, 8.1V	AC	C435	VCE9GA1CW106M+R	10	16V Electrolytic	AB
D811	RH-EX0867CEZZY	R	Zener Diode, 8.1V	AC	C436	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
D812	RH-EX0867CEZZY	R	Zener Diode, 8.1V	AC	C451	VCEA0A1CW477M+R	470	16V Electrolytic	AC
D1001	RH-PX0013PEZZ	R	PhotoDiode	AC	C452	VCEA0A1CW106M+R	10	16V Electrolytic	AB
D1004	RH-EX0616GEZZY	R	Zener Diode, 5.6V	AA	C453	VCEA0A1CW106M+R	10	16V Electrolytic	AB
D1040	RH-EX0611GEZZY	R	Zener Diode	AA	C454	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
D1081	VHD1SS119//1Y	R	1SS119	AA	C455	VCEA0A1CW106M+R	10	16V Electrolytic	AB
D1085	RH-EX0616GEZZY	R	Zener Diode, 5.6V	AA	C505	VCEA0A1HW107M+R	100	50V Electrolytic	AB
D1086	RH-EX0616GEZZY	R	Zener Diode, 5.6V	AA	C508	VCFYAA2AA224J+	R	0.22 100V Metallized Polypro Film	AD
D1087	RH-EX1393CEZZY	R	Zener Diode, 5.1V	AB	C509	VCKYD41CY103NY	R	0.01 16V Ceramic	AB
D1088	RH-EX1393CEZZY	R	Zener Diode, 5.1V	AB	C511	VCEA0A1VW477M+R	470	35V Electrolytic	AB
D1089	RH-EX0613GEZZY	R	Zener Diode, 5.1V	AB	C512	VCKYPA2HB102K+	R	1000p 500V Ceramic	AA
D1090	RH-EX0616GEZZY	R	Zener Diode, 5.6V	AA	C513	VCEA0H1VW478M	R	4700 35V Electrolytic	AL
D1091	VHD1SS119//1Y	R	1SS119	AA	C514	VCFYSA1JB273J+	R	0.027 63V Metallized Polypro Film	AC
D1092	RH-EX1393CEZZY	R	Zener Diode, 5.1V	AB	C515	VCQYTA1HM104J+	R	0.1 50V Mylar	AB
D1093	RH-EX1393CEZZY	R	Zener Diode, 5.1V	AB	C518	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
D1094	VHD1SS119//1Y	R	1SS119	AA	C519	VCKYCY1HB102KY	R	1000p 50V Ceramic	AA
PACKAGED CIRCUITS					C601	VCQYTA1HM563J+	R	0.056 50V Mylar	AB
△ VA701	RH-VX0073CEZZ	R	Varistor	AD	C602	VCEA0A1HW475M+R	4.7	50V Electrolytic	AB
PR701	RMPTP0001PEZZ	R	Packaged Circuit	AN	C603	VCEA0A1HW105M+R	1	50V Electrolytic	AB
X801	RCRSAA019WJZZ	R	Crystal	AF	C604	VCEAGA2EW336M	R	33 250V Electrolytic	AD
COILS					C605	VCKYPA2HB102K+	R	1000p 500V Ceramic	AA
L202	VP-CF270K0000Y	R	Peaking, 27μH	AB	C606	VCKYPA2HB102K+	R	1000p 500V Ceramic	AA
L203	VP-DF270K0000Y	R	Peaking, 27μH	AB	▲▲ C607	VCFPVC3ZA902H	R	9000p 1800V Metallized Polypro Film	AD
L204	VP-XF1R2K0000Y	R	Peaking, 1.2μH	AB	C608	VCKYPA2HB561K+	R	560p 500V Ceramic	AA
L602	RCiLP0223CEZZ	R	Coil	AE	C610	VCFYSB2EB823J	R	0.082 250V Metallized Polypro Film	AD
L603	RCiLZA006WJZZ	R	Coil	AH	C611	VCFPVC2DB244J	R	0.24 200V Metallized Polypro Film	AD
▲ L701	RCiLF0086PEZZ	R	Coil	AH	C641	VCEA0A1EW108M	R	1000 25V Electrolytic	AD
L751	RCiLP0225CEZZ	R	Coil	AF	C642	VCEA0A1EW476M+R	47	25V Electrolytic	AB
L801	VP-CF220K0000Y	R	Peaking, 22μH	AB	C643	VCEA0A1CW476M+R	47	16V Electrolytic	AB
L802	VP-DF100K0000Y	R	Peaking, 10μH	AB	C650	VCKYPA2HB101K+	R	100p 500V Ceramic	AB
L803	VP-DF100K0000Y	R	Peaking, 10μH	AB	▲ C701	RC-FZ038SCEZZ	R	0.47 275V Metallized Polypro Film	AE
L806	VP-DF100K0000Y	R	Peaking, 10μH	AB	C702	RC-KZ0029CEZZ+	R	0.01 250V Ceramic	AC
L808	VP-XF330K0000Y	R	Peaking, 33μH	AB	C703	RC-KZ0029CEZZ+	R	0.01 250V Ceramic	AC
SF201	RFiLC0037PEZZ	R	Filter	AP	C704	RC-KZ0029CEZZ	R	0.01 250V Ceramic	AC
TRANSFORMERS					▲ C705	RC-EZA072WJZZ	R	220 400V	AN
▲ T601	RTRNZ0026PEZZ	R	Transformer	AH	C706	VCQYTA1HM103J+	R	0.01 50V Mylar	AB
▲▲ T602	RTRNFA012WJZZ	R	H-Volt Transformer	BB	▲ C708	RC-FZ031SCEZZ	R	0.1 275V Metallized Polypro Film	AD
▲ T701	RTRNWA076WJZZ	R	Transformer	AM	▲ C711	VCFYFA1HA334J+	R	0.33 50V	AB
CAPACITORS					C713	RC-KZ0107GEZZ	R	3900p 250V Ceramic	AE
C201	VCEA0A1CW476M+R	47	16V Electrolytic	AB	C718	VCKYPA2HB472K+	R	4700p 500V Ceramic	AB
C202	VCEA0A0JW108M+R	1000	6.3V Electrolytic	AC	C735	VCQYTA1HM104J+	R	0.1 50V Mylar	AB
C203	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA	C737	VCEA0A1EW226M+R	22	25V Electrolytic	AB
C205	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA	C738	RC-KZ0040CEZZ	R	820p 2kV Ceramic	AD
C206	VCEA0A1HW106M+R	10	50V Electrolytic	AB	C743	VCKYPH3DB561K	R	560p 2000V Ceramic	AC
C207	VCKYPA1HB103K+	R	0.01 50V Ceramic	AA	C752	VCKYPH3DB561K	R	560p 2000V Ceramic	AC
C208	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA	C753	RC-EZ0776CEZZ	R	100 160V Electrolytic	AF
C209	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA	C754	RC-EZA069WJZZ	R	33 160V Electrolytic	AE
C210	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA	C755	VCEA0A1EW108M	R	1000 25V Electrolytic	AD
C213	VCKYCY1HB102KY	R	1000p 50V Ceramic	AA	C756	VCEA0A1EW228M	R	2200 25V Electrolytic	AF
C301	VCEA0A1CW477M+R	470	16V Electrolytic	AC	C758	VCEA0A1HW225M+R	2.2	50V Electrolytic	AB
C302	VCEA0A1CW106M+R	10	16V Electrolytic	AB	C759	VCKYCY1HB102KY	R	1000p 50V Ceramic	AA
C303	VCEA0A1CW106M+R	10	16V Electrolytic	AB	C784	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C304	VCEA0A1CW106M+R	10	16V Electrolytic	AB	C801	VCFYFA1HA105J+	R	1 50V Metallized Polypro Film	AE
C307	VCEA0A1HW474M+R	0.47	50V Electrolytic	AB	C802	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C308	VCKYCY1HB682KY	R	6800p 50V Ceramic	AA	C803	VCEA0A1CW108M+R	1000	16V Electrolytic	AD
C310	VCEA0A1HW225M+R	2.2	50V Electrolytic	AB	C804	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C311	VCEA0A1HW474M+R	0.47	50V Electrolytic	AB	C805	VCEA9M1HW105M+R	1	50V Electrolytic	AB
C312	VCEA0A1HW474M+R	0.47	50V Electrolytic	AB	C806	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C313	VCKYCY1HB682KY	R	6800p 50V Ceramic	AA	C807	VCEA0A1CW108M+R	1000	16V Electrolytic	AD
C322	VCEA0A1HW105M+R	1	50V Electrolytic	AB	C808	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C376	VCEA0A1CW107M+R	100	16V Electrolytic	AC					
C377	VCEA0A1CW107M+R	100	16V Electrolytic	AC					
C383	VCEA0A1CW106M+R	10	16V Electrolytic	AB					
C387	VCEA0A1CW106M+R	10	16V Electrolytic	AB					

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R438	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA	R766	VRS-CY1JF333JY	R 33k	1/16W Metal Oxide	AA
R439	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA	R768	VRS-CY1JF332JY	R 3.3k	1/16W Metal Oxide	AA
R458	VRS-CY1JF103JY	R 10k	1/16W Metal Oxide	AA	R801	VRD-RA2BE273JY	R 27k	1/8W Carbon	AA
R459	VRD-RA2EE750JY	R 75	1/4W Carbon	AA	R802	VRS-CY1JF682JY	R 6.8k	1/16W Metal Oxide	AA
R461	VRS-CY1JF750JY	R 75	1/16W Metal Oxide	AA	R803	VRS-CY1JF103JY	R 10k	1/16W Metal Oxide	AA
R462	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA	R804	VRS-CY1JF222JY	R 2.2k	1/16W Metal Oxide	AA
R502	VRS-VV3AB102J	R 1k	1W Metal Oxide	AA	R805	VRS-CY1JF222JY	R 2.2k	1/16W Metal Oxide	AA
R503	VRN-VV3DB1R2J	R 1.2	2W Metal Film	AA	R806	VRS-CY1JF222JY	R 2.2k	1/16W Metal Oxide	AA
R504	VRS-CY1JF222JY	R 2.2k	1/16W Metal Oxide	AA	R807	VRS-CY1JF222JY	R 2.2k	1/16W Metal Oxide	AA
R506	VRS-VV3AB331J	R 330	1W Metal Oxide	AA	R811	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R507	VRD-RM2HD1R0JY	R 1	1/2W Carbon	AA	R812	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R513	VRD-RM2HD333JY	R 33k	1/2W Carbon	AB	R814	VRS-CY1JF473JY	R 47k	1/16W Metal Oxide	AA
R514	VRD-RM2HD682JY	R 6.8k	1/2W Carbon	AA	R815	VRS-CY1JF473JY	R 47k	1/16W Metal Oxide	AA
R520	VRS-CY1JF123JY	R 12k	1/16W Metal Oxide	AA	R816	VRS-CY1JF223JY	R 22k	1/16W Metal Oxide	AA
R522	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA	R817	VRS-CY1JF473JY	R 47k	1/16W Metal Oxide	AA
R523	VRD-RA2BE101JY	R 100	1/8W Carbon	AA	R818	VRS-VV3AB101J	R 100	1W Metal Oxide	AA
R524	VRS-CY1JF103JY	R 10k	1/16W Metal Oxide	AA	R823	VRD-RA2BE101JY	R 100	1/8W Carbon	AA
R525	VRD-RA2BE123JY	R 12k	1/8W Carbon	AA	R824	VRD-RA2BE101JY	R 100	1/8W Carbon	AA
R526	VRD-RA2BE101JY	R 100	1/8W Carbon	AA	R826	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R528	VRS-CY1JF683JY	R 68k	1/16W Metal Oxide	AA	R827	VRS-CY1JF681JY	R 680	1/16W Metal Oxide	AA
R602	VRD-RA2BE393JY	R 39k	1/8W Carbon	AA	R829	VRS-CY1JF472JY	R 4.7k	1/16W Metal Oxide	AA
R603	VRD-RA2BE273JY	R 27k	1/8W Carbon	AA	R830	VRS-CY1JF393JY	R 39k	1/16W Metal Oxide	AA
R604	VRD-RA2BE473JY	R 47k	1/8W Carbon	AA	R831	VRS-CY1JF331JY	R 330	1/16W Metal Oxide	AA
R605	VRD-RM2HD104JY	R 100k	1/2W Carbon	AA	R832	VRS-CY1JF822JY	R 8.2k	1/16W Metal Oxide	AA
R606	VRN-VV3LBR27J	R 0.27	3W Metal Film	AC	R833	VRS-CY1JF220JY	R 22	1/16W Metal Oxide	AA
R607	VRD-RA2BE103JY	R 10k	1/8W Carbon	AA	R835	VRS-CY1JF102JY	R 1k	1/16W Metal Oxide	AA
△ R608	VRD-RM2HD102JY	R 1k	1/2W Carbon	AA	R836	VRD-RA2BE470JY	R 47	1/8W Carbon	AA
△ R611	VRN-VV3ABR27J	R 0.27	1W Metal Film	AA	R837	VRD-RM2HD151JY	R 150	1/2W Carbon	AA
△ R612	VRD-RM2HD270JY	R 27	1/2W Carbon	AA	R838	VRS-CY1JF105JY	R 1M	1/16W Metal Oxide	AA
▲ R614	VRD-RA2BE154JY	R 150k	1/8W Carbon	AA	R839	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R615	VRD-RA2BE102JY	R 1k	1/8W Carbon	AA	R840	VRS-CY1JF124JY	R 120k	1/16W Metal Oxide	AA
R616	VRD-RA2BE102JY	R 1k	1/8W Carbon	AA	R843	VRD-RA2BE103JY	R 10k	1/8W Carbon	AA
R617	VRS-CY1JF123JY	R 12k	1/16W Metal Oxide	AA	R845	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R618	VRS-CY1JF103JY	R 10k	1/16W Metal Oxide	AA	R1002	VRS-CY1JF183JY	R 18k	1/16W Metal Oxide	AA
R619	VRS-CY1JF103JY	R 10k	1/16W Metal Oxide	AA	R1003	VRS-CY1JF822JY	R 8.2k	1/16W Metal Oxide	AA
R620	VRS-CY1JF333JY	R 33k	1/16W Metal Oxide	AA	R1006	VRS-CY1JF822JY	R 8.2k	1/16W Metal Oxide	AA
R621	VRN-SV2HC4R7JY	R 4.7	1/2W Metal Film	AB	R1007	VRS-CY1JF103JY	R 10k	1/16W Metal Oxide	AA
R622	VRS-VV3DB682J	R 6.8k	2W Metal Oxide	AA	R1008	VRS-CY1JF183JY	R 18k	1/16W Metal Oxide	AA
R631	VRS-KT3LB391J	R 390	3W Metal Oxide	AD	R1009	VRS-CY1JF103JY	R 10k	1/16W Metal Oxide	AA
R632	VRS-VV3LB122J	R 1.2k	3W Metal Oxide	AB	R1012	VRS-CY1JF391JY	R 390	1/16W Metal Oxide	AA
△ R633	VRS-KA3NG3R3K	R 3.3	7W Metal Oxide	AD	R1021	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R636	VRS-KA3HG912J	R 9.1k	5W Metal Oxide	AD	R1022	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R637	VRD-RA2BE331JY	R 330	1/8W Carbon	AA	R1023	VRD-RA2BE271JY	R 270	1/8W Carbon	AA
R638	VRD-RA2BE331JY	R 330	1/8W Carbon	AA	R1024	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R639	VRD-RM2HD562JY	R 5.6k	1/2W Carbon	AA	R1027	VRS-CY1JF104JY	R 100k	1/16W Metal Oxide	AA
R653	VRD-RM2HD184JY	R 180k	1/2W Carbon	AA	R1031	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R654	VRS-CY1JF472JY	R 4.7k	1/16W Metal Oxide	AA	R1032	VRS-CY1JF332JY	R 3.3k	1/16W Metal Oxide	AA
R661	VRD-RA2BE102JY	R 1k	1/8W Carbon	AA	R1034	VRS-CY1JF103JY	R 10k	1/16W Metal Oxide	AA
R662	VRS-CY1JF103JY	R 10k	1/16W Metal Oxide	AA	R1035	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R701	VRW-KQ3NC1R5K	R 1.5	7W Cement	AE	R1036	VRD-RA2BE103JY	R 10k	1/8W Carbon	AA
R702	VRD-RM2HD100JY	R 10	1/2W Carbon	AA	R1037	VRD-RA2BE103JY	R 10k	1/8W Carbon	AA
R705	VRN-VV3DBR27J	R 0.27	2W Metal Film	AB	R1038	VRS-CY1JF562JY	R 5.6k	1/16W Metal Oxide	AA
R706	VRN-VV3DBR27J	R 0.27	2W Metal Film	AB	R1039	VRS-CY1JF102JY	R 1k	1/16W Metal Oxide	AA
R707	VRD-RM2HD270JY	R 27	1/2W Carbon	AA	R1040	VRD-RA2BE103JY	R 10k	1/8W Carbon	AA
R708	VRD-RA2BE102JY	R 1k	1/8W Carbon	AA	R1042	VRD-RA2BE101JY	R 100	1/8W Carbon	AA
R710	VRS-SV2HC103J	R 10k	1/2W Metal Oxide	AA	R1043	VRS-CY1JF104JY	R 100k	1/16W Metal Oxide	AA
R711	VRD-RA2BE394JY	R 390k	1/8W Carbon	AA	R1044	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R713	VRD-RM2HD122JY	R 1.2k	1/2W Carbon	AA	R1045	VRD-RA2BE101JY	R 100	1/8W Carbon	AA
R715	VRD-RA2BE150JY	R 15	1/8W Carbon	AA	R1046	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R716	VRD-RA2BE223JY	R 22k	1/8W Carbon	AA	R1047	VRD-RA2BE183JY	R 18k	1/8W Carbon	AA
R718	VRC-UA2HG275KY	R 2.7M	1/2W Solid	AC	R1048	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R725	VRD-RM2HD821JY	R 820	1/2W Carbon	AA	R1049	VRD-RA2BE183JY	R 18k	1/8W Carbon	AA
R726	VRN-SV2HCR47J	R 0.47	1/2W Metal Film	AA	R1050	VRD-RA2BE101JY	R 100	1/8W Carbon	AA
R730	VRW-GA4AB1R5K	R 1.5	10W Cement	AE	R1051	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R742	VRD-RA2BE183JY	R 18k	1/8W Carbon	AA	R1052	VRS-CY1JF104JY	R 100k	1/16W Metal Oxide	AA
R743	VRS-CY1JF332JY	R 3.3k	1/16W Metal Oxide	AA	R1053	VRD-RA2BE101JY	R 100	1/8W Carbon	AA
R744	VRS-CY1JF332JY	R 3.3k	1/16W Metal Oxide	AA	R1054	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R745	VRS-CY1JF682JY	R 6.8k	1/16W Metal Oxide	AA	R1055	VRS-CY1JF332JY	R 3.3k	1/16W Metal Oxide	AA
R746	VRD-RA2BE223JY	R 22k	1/8W Carbon	AA	R1056	VRS-CY1JF332JY	R 3.3k	1/16W Metal Oxide	AA
R751	VRC-UA2HG825KY	R 8.2M	1/2W Solid	AA	R1059	VRS-CY1JF103JY	R 10k	1/16W Metal Oxide	AA
△ R752	VRC-UA2HG825KY	R 8.2M	1/2W Solid	AA	R1061	VRS-CY1JF102JY	R 1k	1/16W Metal Oxide	AA
R753	VRD-RM2HD124JY	R 120k	1/2W Carbon	AA	R1063	VRS-CY1JF103JY	R 10k	1/16W Metal Oxide	AA
R754	VRS-KA3NG220J	R 22	7W Metal Oxide	AD	R1064	VRD-RA2BE103JY	R 10k	1/8W Carbon	AA
R755	VRS-VV3DB150J	R 15	2W Metal Oxide	AA	R1065	VRD-RA2BE103JY	R 10k	1/8W Carbon	AA
R756	VRS-VV3DB101J	R 100	2W Metal Oxide	AA	R1072	VRS-CY1JF221JY	R 220	1/16W Metal Oxide	AA
R760	VRS-CY1JF123JY	R 12k	1/16W Metal Oxide	AA	R1073	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R1074	VRS-CY1JF332JY	R 3.3k	1/16W Metal Oxide	AA
R1076	VRS-CY1JF102JY	R 1k	1/16W Metal Oxide	AA
R1078	VRS-CY1JF332JY	R 3.3k	1/16W Metal Oxide	AA
R1079	VRS-CY1JF332JY	R 3.3k	1/16W Metal Oxide	AA
R1087	VRD-RA2BE391JY	R 390	1/8W Carbon	AA
R1095	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R1096	VRD-RA2BE103JY	R 10k	1/8W Carbon	AA
R1840	VRS-CY1JF395JY	R 3.9M	1/16W Metal Oxide	AA
R1841	VRS-CY1JF395JY	R 3.9M	1/16W Metal Oxide	AA
R1849	VRS-CY1JF271JY	R 270	1/16W Metal Oxide	AA
R1850	VRS-CY1JF681JY	R 680	1/16W Metal Oxide	AA
R1851	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R1852	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R1853	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R1854	VRS-CY1JF103JY	R 10k	1/16W Metal Oxide	AA
R1855	VRD-RA2BE122JY	R 1.2k	1/8W Carbon	AA
R1856	VRS-CY1JF223JY	R 22k	1/16W Metal Oxide	AA
R1863	VRS-CY1JF185JY	R 1.8M	1/16W Metal Oxide	AA
R1864	VRS-CY1JF185JY	R 1.8M	1/16W Metal Oxide	AA
R1865	VRS-CY1JF473JY	R 47k	1/16W Metal Oxide	AA
R1866	VRS-CY1JF473JY	R 47k	1/16W Metal Oxide	AA
R1867	VRS-CY1JF103JY	R 10k	1/16W Metal Oxide	AA
R1892	VRS-CY1JF562JY	R 5.6k	1/16W Metal Oxide	AA
R1894	VRS-CY1JF103JY	R 10k	1/16W Metal Oxide	AA
R1895	VRS-CY1JF103JY	R 10k	1/16W Metal Oxide	AA
R1896	VRS-CY1JF393JY	R 39k	1/16W Metal Oxide	AA
BALUNES				
FB701	RBLN-0095GEZZ+	R BLN-0095GE		AC
△ FB703	RBLN-0037CEZZY	R BLN-0037CE		AB
SWITCHES				
△ S701	QSW-PA006WJZZ	R Switch, POWER		AG
S1001	QSW-K0077GEZZ+	R Switch, CH UP		AC
S1002	QSW-K0077GEZZ+	R Switch, CH DOWN		AC
S1003	QSW-K0077GEZZ+	R Switch, VOL. UP		AC
S1004	QSW-K0077GEZZ+	R Switch, VOL. DOWN		AC
S1005	QSW-K0077GEZZ+	R Switch, MENU		AC
MISCELLANEOUS PARTS				
△ F701	QFS-C3229CEZZ	R Fuse, 3.15A/250V		AD
FH701	QFSDH1013CEZZ+	R Fuse Holder		AC
FH702	QFSDH1014CEZZ+	R Fuse Holder		AC
J401	QJAKGA015WJZZ	R Jack		AH
J402	QJAKEA033WJ04	R AV-2 In Jack		AC
J403	QJAKEA033WJ09	R AV-2 In Jack		AC
J404	QJAKEA020WJ02	R AV-2 In Jack		AC
J405	QTANJ0644CEZZ	R AV-1 In Jack		AM
P302	QPLGN0461CEZZ	R Plug, 4Pin(S)		AB
P303	QPLGN0761CEZZ	R Plug, 7Pin(HP)		AD
P403	QPLGN0261CEZZ	R Plug, 2Pin(FV)		AB
P404	QPLGN0261CEZZ	R Plug, 2Pin(FV)		AB
P601	QPLGN0660CEZZ	R Plug, 6Pin(F)		AC
P602	QPLGN0561CEZZ	R Plug, 5Pin(H)		AB
P701	QPLGN0260CEZZ	R Plug, 2Pin(M1-2)		AC
P702	QPLGN0269GEZZ	R Plug, 2Pin		AB
P1001	QPLGN0578GEZZ	R Plug, 5Pin(K)		AB
P1002	QPLGN0561CEZZ	R Plug, 5Pin(BC)		AB
P1102	QPLGN0561CEZZ	R Plug, 5Pin(TT)		AB
P1103	QPLGN0761CEZZ	R Plug, 7Pin(TX)		AD
P1104	QPLGN0661CEZZ	R Plug, 6Pin(TE)		AD
RDA501	PRDARA010WJFW	R Heat Sink for IC501		AD
RDA602	PRDAR0224PEFW	R Heat Sink for Q602		AF
RDA701	PRDARA026WJFW	R Heat Sink for Q701		AE
RMC1001	RRMRCUA009WJZZ	R Remote Receiver		AF
△ RY701	RRLYJ0093CEZZ	R Relay		AG
SC305	QSOCN0259FJ00	R Socket, 10Pin(EB)		AE
SC306	QSOCN0259FJ00	R Socket, 10Pin(EA)		AE
	LHLDP1066PE00	R Holder		AC

Ref. No.	Part No.	★	Description	Code
DUNTKA599WEB8 PWB-B CRT UNIT				
TRANSISTORS				
Q853	VS2SC3789//2E	R 2SC3789		AF
Q854	VS2SC3789//2E	R 2SC3789		AF
Q855	VS2SC3789//2E	R 2SC3789		AF
Q894	VS2PA1015Y+-1+	R 2PA1015Y		AC
DIODES				
D859	VHD1SS119//1Y	R 1SS119		AA
D896	RH-EX0616GEZZY	R Zener Diode, 5.6V		AA
D898	VHD1SS119//1Y	R 1SS119		AA
COIL				
L851	VP-MK820K0000+	R Peaking, 82μH		AB
CAPACITORS				
C851	VCKYPA1HB271K+ R	270p 50V Ceramic		AB
C852	VCKYPA1HB271K+ R	270p 50V Ceramic		AB
C853	VCKYPA1HB221K+ R	220p 50V Ceramic		AA
C880	RC-KZ0153CEZZ	R 1000p 3kV		AB
C893	VCEA0A1CW336M+R	33 16V Electrolytic		AB
RESISTORS				
R849	VRD-RA2BE271JY	R 270 1/8W Carbon		AA
R850	VRD-RA2BE470JY	R 47 1/8W Carbon		AA
R851	VRD-RA2BE470JY	R 47 1/8W Carbon		AA
R852	VRD-RA2BE470JY	R 47 1/8W Carbon		AA
R854	VRD-RA2BE271JY	R 270 1/8W Carbon		AA
R855	VRD-RA2BE271JY	R 270 1/8W Carbon		AA
△ R859	VRS-VV3DB123J	R 12k 2W Metal Oxide		AA
△ R861	VRS-VV3DB123J	R 12k 2W Metal Oxide		AA
△ R863	VRS-VV3DB123J	R 12k 2W Metal Oxide		AA
R864	VRD-RA2BE470JY	R 47 1/8W Carbon		AA
R876	VRD-RA2BE121JY	R 120 1/8W Carbon		AA
R877	VRD-RA2BE121JY	R 120 1/8W Carbon		AA
R878	VRD-RA2BE121JY	R 120 1/8W Carbon		AA
R880	VRD-RM2HD332JY	R 3.3k 1/2W Carbon		AA
R881	VRD-RM2HD332JY	R 3.3k 1/2W Carbon		AA
R882	VRD-RM2HD332JY	R 3.3k 1/2W Carbon		AA
R889	VRD-RA2BE821JY	R 820 1/8W Carbon		AA
R891	VRD-RA2BE102JY	R 1k 1/8W Carbon		AA
R892	VRD-RA2BE391JY	R 390 1/8W Carbon		AA
R894	VRD-RA2BE152JY	R 1.5k 1/8W Carbon		AA
R895	VRD-RA2EE561JY	R 560 1/4W Carbon		AA
MISCELLANEOUS PARTS				
P860	QPLGN0561CEZZ	R Plug, 5Pin(H)		AB
P880	QPLGN0578GEZZ	R Plug, 5Pin(K)		AB
SC851	QSOCV0016PEZZ	R Socket, 12Pin		AF

Ref. No.	Part No.	★	Description	Code
DUNTKB997WEA1 PWB-C HEADPHONE UNIT				
RESISTORS				
RJ57	VRS-CY1JF000JY	R 0 1/16W Metal Oxide		AA
R370	VRS-CY1JF471JY	R 470 1/16W Metal Oxide		AA
R371	VRS-CY1JF471JY	R 470 1/16W Metal Oxide		AA
MISCELLANEOUS PARTS				
J351	QJAKJ0101SEZZ	R Jack		AE
P351	QPLGN0461CEZZ	R Plug, 4Pin(HP1)		AB
P352	QPLGN0361CEZZ	R Plug, 3Pin(HP2)		AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
DUNTKC038WEA0									
PWB-D TELETEXT UNIT									
INTEGRATED CIRCUITS									
IC1200	VHiSAA5264+1E	R	SAA5264	BE	R1216	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
IC1260	VHiNJM2870F33Y	R	I.C.	AF	R1217	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
TRANSISTORS					R1218	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
Q1250	VS2PD601AR/-1Y	R	2PD601AR	AB	R1219	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
Q1251	VS2PD601AR/-1Y	R	2PD601AR	AB	R1220	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
Q1252	VS2PD601AR/-1Y	R	2PD601AR	AB	R1221	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
DIODES					R1222	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
D1200	RH-EX0619GEZZY	R	Zener Diode, 6.2V	AA	R1223	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
D1201	RH-EX0619GEZZY	R	Zener Diode, 6.2V	AA	R1224	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
D1205	RH-EX0603GEZZY	R	Zener Diode	AA	R1227	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
D1211	VHD1SS119//1Y	R	1SS119	AA	R1228	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
D1212	VHD1SS119//1Y	R	1SS119	AA	R1233	VRS-CY1JF102JY	R	1k 1/16W Metal Oxide	AA
D1213	VHD1SS119//1Y	R	1SS119	AA	R1234	VRS-CY1JF102JY	R	1k 1/16W Metal Oxide	AA
D1217	VHD1SS119//1Y	R	1SS119	AA	R1236	VRS-CY1JF243JY	R	24k 1/16W Metal Oxide	AA
D1218	VHD1SS119//1Y	R	1SS119	AA	R1246	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
D1219	RH-EX0610GEZZY	R	Zener Diode, 4.8V	AA	R1247	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
D1220	VHD1SS119//1Y	R	1SS119	AA	R1251	VRS-CY1JF104JY	R	100k 1/16W Metal Oxide	AA
D1221	VHD1SS119//1Y	R	1SS119	AA	R1253	VRS-CY1JF104JY	R	100k 1/16W Metal Oxide	AA
D1222	VHD1SS119//1Y	R	1SS119	AA	R1254	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
D1223	VHD1SS119//1Y	R	1SS119	AA	R1255	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
D1224	VHD1SS119//1Y	R	1SS119	AA	R1260	VRS-CY1JF154JY	R	150k 1/16W Metal Oxide	AA
D1225	VHD1SS119//1Y	R	1SS119	AA	R1261	VRD-RM2HD221JY	R	220 1/2W Carbon	AA
PACKAGED CIRCUIT					R1262	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
X1200	RCRSB0281CEZZ	R	Crystal	AG	R1263	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
COIL					R1264	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
L1202	VP-DF101K0000Y	R	Peaking, 100μH	AB	R1265	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
CAPACITORS					R1266	VRS-CY1JF681JY	R	680 1/16W Metal Oxide	AA
C1200	VCFYFA1HA224J+	R	0.22 50V Mylar	AB	R1267	VRS-CY1JF681JY	R	680 1/16W Metal Oxide	AA
C1201	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB	R1268	VRS-CY1JF681JY	R	680 1/16W Metal Oxide	AA
C1202	VCEA0A1CW107M+R	100	16V Electrolytic	AC	R1274	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
C1203	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB	R1275	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
C1204	VCEA0A1CW107M+R	100	16V Electrolytic	AC	R1276	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
C1206	VCCCCY1HH330JY	R	33p 50V Ceramic	AA	R1277	VRS-CY1JF681JY	R	680 1/16W Metal Oxide	AA
C1207	VCCCCY1HH330JY	R	33p 50V Ceramic	AA	R1278	VRS-CY1JF681JY	R	680 1/16W Metal Oxide	AA
C1208	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB	R1279	VRS-CY1JF681JY	R	680 1/16W Metal Oxide	AA
C1209	VCEA0A1CW107M+R	100	16V Electrolytic	AC	R1280	VRS-CY1JF272JY	R	2.7k 1/16W Metal Oxide	AA
C1212	VCKYCY1CF104ZY	R	0.1 16V Ceramic	AA	R1281	VRD-RA2BE471JY	R	470 1/8W Carbon	AA
C1213	VCEA0A1HW225M+R	2.2	50V Electrolytic	AB	R1282	VRD-RA2BE471JY	R	470 1/8W Carbon	AA
C1220	VCKYCY1CF104ZY	R	0.1 16V Ceramic	AA	R1283	VRD-RM2HD271JY	R	270 1/2W Carbon	AA
C1221	VCKYCY1CF104ZY	R	0.1 16V Ceramic	AA	R1284	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
C1222	VCKYCY1CF104ZY	R	0.1 16V Ceramic	AA	MISCELLANEOUS PARTS				
C1250	VCCCCY1HH220JY	R	22p 50V Ceramic	AA	P1202	QPLGN0561CEZZ	R	Plug, 5Pin(TT)	AB
C1260	VCEA0A1HW474M+R	0.47	50V Electrolytic	AB	P1203	QPLGN0761CEZZ	R	Plug, 7Pin(TX)	AD
C1261	VCEA0A1HW104M+R	0.1	50V Electrolytic	AB	P1204	QPLGN0661CEZZ	R	Plug, 6Pin(TE)	AD
C1262	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA	DUNTKC030WEA1				
C1263	VCCCCY1HH101JY	R	100p 50V Ceramic	AA	PWB-E S-CONTROL UNIT				
RESISTOR					INTEGRATED CIRCUIT				
RJ1201	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA	IC3501	VHiNJW1142+1Y	R	I.C.	
RJ1202	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA	DIODES				
R1200	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA	D3501	RH-EX0619GEZZY	R	Zener Diode, 6.2V	AA
R1201	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA	D3502	RH-EX0619GEZZY	R	Zener Diode, 6.2V	AA
R1202	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA	COIL				
R1203	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA	L3501	VP-DF100K0000Y	R	Peaking, 10μH	AB
R1204	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA	CAPACITORS				
R1205	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA	C3501	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB
R1206	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA	C3502	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB
R1207	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA	C3503	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB
R1208	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA	C3504	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB
R1209	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA	C3505	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB
R1210	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA	C3506	VCKYCY1CF224ZY	R	0.22 16V Ceramic	AB
R1211	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA	C3507	VCEA0A1HW475M+R	4.7	50V Electrolytic	AB
R1212	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA	C3508	VCEA0A1HW475M+R	4.7	50V Electrolytic	AB
R1213	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA	C3509	VCQYTA1HM223J+	R	0.022 50V Mylar	AB
R1214	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA	C3510	VCQYTA1HM223J+	R	0.022 50V Mylar	AB
R1215	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA	C3511	VCQYTA1HM222J+	R	2200p 50V Mylar	AA
					C3512	VCQYTA1HM222J+	R	2200p 50V Mylar	AA

Ref. No.	Part No.	★	Description	Code
C3513	VCFYFA1HA224J+	R 0.22	50V Mylar	AB
C3514	VCFYFA1HA224J+	R 0.22	50V Mylar	AB
C3515	VCEA0A1HW105M+R	1	50V Electrolytic	AB
C3516	VCEA0A1HW105M+R	1	50V Electrolytic	AB
C3517	VCEA0A1HW105M+R	1	50V Electrolytic	AB
C3518	VCFYFA1HA334J+	R 0.33	50V Mylar	AB
C3519	VCEA0A1HW105M+R	1	50V Electrolytic	AB
C3520	VCEA0A1HW105M+R	1	50V Electrolytic	AB
C3521	VCEA0A1HW105M+R	1	50V Electrolytic	AB
C3522	VCEA0A1HW105M+R	1	50V Electrolytic	AB
C3523	VCKYCY1CF104ZY	R 0.1	16V Ceramic	AA
C3524	VCEA0A1CW476M+R	47	16V Electrolytic	AB
C3525	VCKYCY1HF103ZY	R 0.01	50V Ceramic	AA
C3526	VCKYCY1HF103ZY	R 0.01	50V Ceramic	AA

RESISTORS

RJ3501	VRS-CY1JF000JY	R 0	1/16W Metal Oxide	AA
R3501	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R3502	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R3503	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R3504	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R3505	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R3506	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R3507	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA
R3508	VRS-CY1JF101JY	R 100	1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

P3008	QPLGN0242FJ00	R Plug, 10Pin(EA)	AE
P3009	QPLGN0242FJ00	R Plug, 10Pin(EB)	AE

Ref. No.	Part No.	★	Description	Code
MISCELLANEOUS PARTS				
△ ACC701	QACCZ2008PEZZ	R	AC Cord	AM
SP301	VSP9050PB35WA	R	Speaker (L)	AK
SP302	VSP9050PB35WA	R	Speaker (R)	AK
	QCNW-A922WJN1	R	Connecting Cord	AE
	QCNW-A923WJN1	R	Connecting Cord	AE
	QCNW-A990WJN1	R	Connecting Cord	AE
	QCNW-A991WJN1	R	Connecting Cord	AE
	QCNW-A992WJN1	R	Connecting Cord	AF
	QCNW-B102WJN1	R	Connecting Cord	AE
	QCNW-B266WJZZ	R	Connecting Cord	AF
	QCNW-B316WJZZ	R	Connecting Cord	AF
	HiNDPA595WJZZ	R	Indicator	AE
	LHLDFA002WJZZ	R	Holder	AD
	LHLDZA248WJZZ	R	Holder	AC
	PSPAGA026WJZZ	R	Spacer	AB
	PSPAHA203WJ00	R	Spacer	AC
	PSPAHA204WJ00	R	Spacer	AC
	LHLDK0024PEZZ	R	Holder	AC
	LHLDZ0133PEZZ	R	Holder	AC
	TLABK0002PEZZ	R	Label	AB
	TLABMA560WJZZ	R	Label	AC
	TLABN0001PEZZ	R	Label	AD

SUPPLIED ACCESSORIES**ACCESSORIES**

RRMCG1606PESB	R Infrared Remote Control Unit	AT
TiNS-A781WJZZ	R Operation Manual	AK

**PACKING PARTS
(NOT REPLACEMENT ITEM)**

SPAKCA755WJZZ	– Packing Case	—
SPAKXA299WJZZ	– Packing Add.	—
SSAKA0031PEZZ	– Polyethylene Bag	—
SSAKH0016PEZZ	– Polyethylene Bag	—

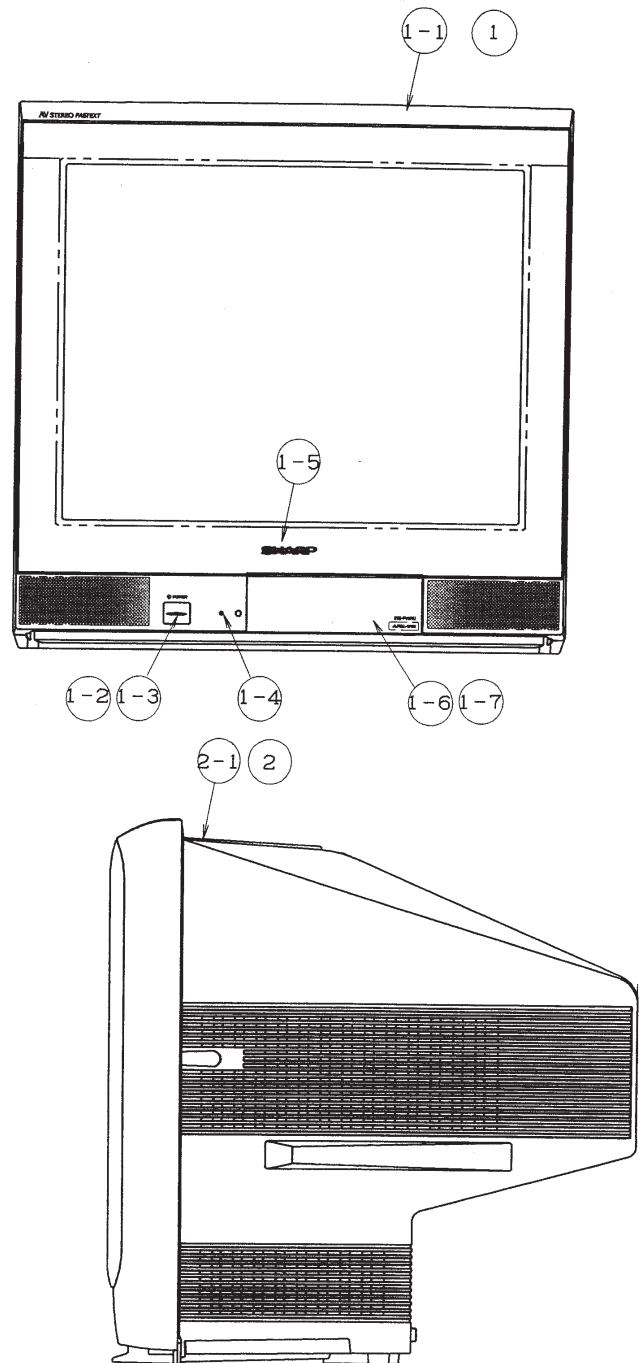
Ref. No.	Part No.	★	Description	Code
----------	----------	---	-------------	------

CABINET PARTS

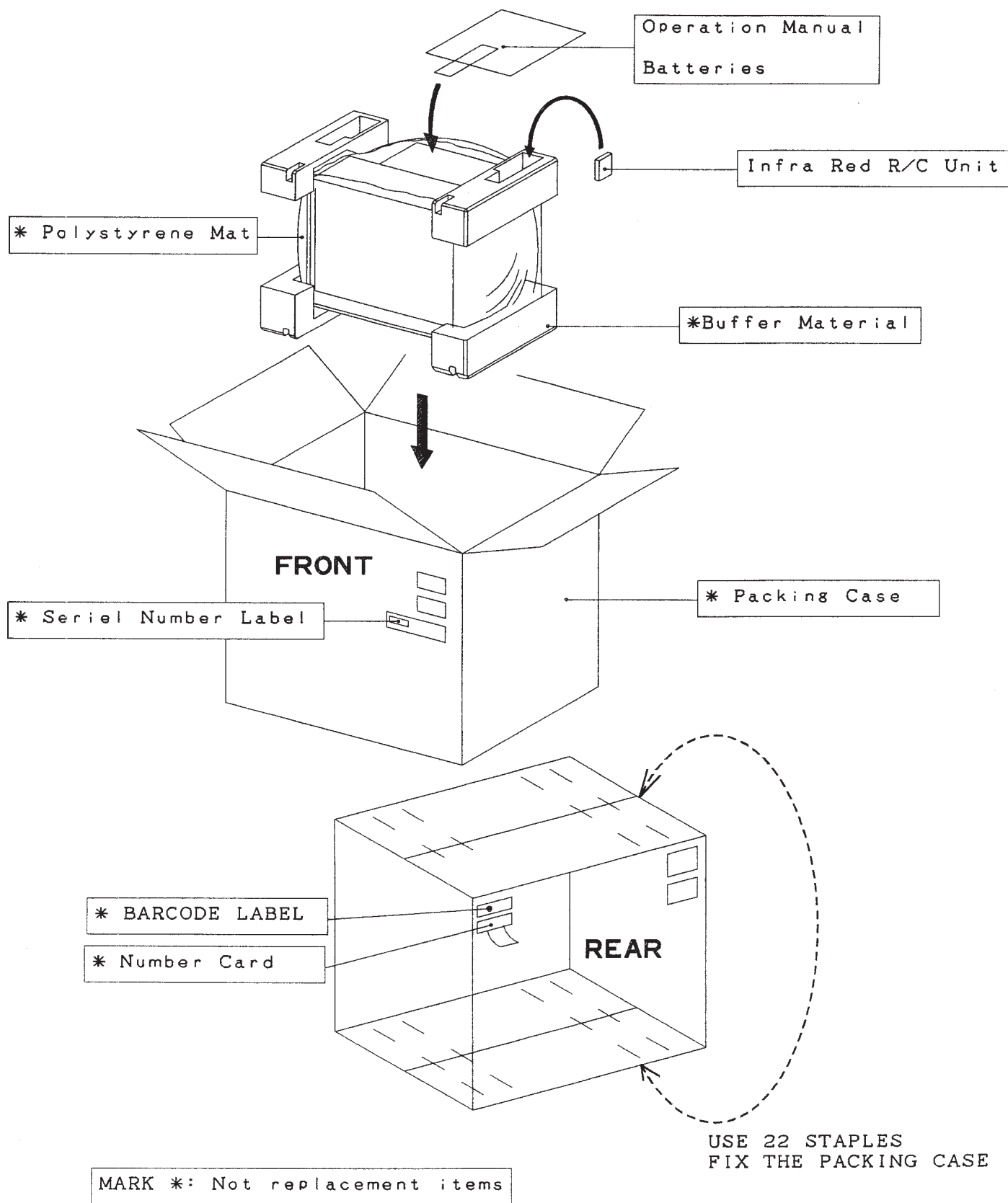
1	CCABAA350WEV0	R	Front Cabinet Ass'y	BD
1-1	<i>Not Available</i>	—	Front Cabinet	—
1-2	JBTN-A169WJSA	R	Power Button	AD
1-3	MSPRC0005PEFW	R	Power Spring	AB
1-4	GCOVAA484WJSA	R	R/C Cover	AD
1-5	HBDGB3155CESA	R	SHARP Badge	AF
1-6	GDORFA047WJSA	R	Door	AF
1-7	MSPRPA031WJFW	R	Door Spring	AB
2	CCABBA237WEV0	R	Rear Cabinet Ass'y	—
2-1	<i>Not Available</i>	—	Rear Cabinet	—

Ref. No.	Part No.	★	Description	Code
----------	----------	---	-------------	------

CABINET PARTS LOCATION



PACKING OF THE SET



SHARP

COPYRIGHT © 2003 BY SHARP CORPORATION

ALL RIGHTS RESERVED.

No part of this publication may be reproduced,
stored in a retrieval system, or transmitted in
any form or by any means, electronic, mechanical,
photocopying, recording, or otherwise, without
prior written permission of the publisher.

TQ1624-S
Sep. 2003 Printed in Japan
In Japan gedruckt

Design and Production Information	
Design	: SEM
Production	: SREC

MY. DS

SHARP CORPORATION
AV Systems Group
Quality & Reliability Control Center
Yaita, Tochigi 329-2193, Japan

Other ManualsLib Projects

 www.manualslib.com

 www.manualslib.de

 www.manualslib.es

 www.manualslib.fr

 www.manualslib.nl

 www.manualslib.mx

 www.manualslib.tech 30+ Languages